



* APPROVED *
CITY OF RIVERSIDE
BUILDING & SAFETY

THIS APPROVAL DOES NOT AUTHORIZE VIOLATION OF ANY PROVISIONS OF STATE OR LOCAL BUILDING REGULATIONS NOR DOES IT PREVENT REQUIRING CORRECTIONS OF ANY ERROR SUBSEQUENTLY IDENTIFIED ON THESE PLANS OR CONSTRUCTED DUE TO ERRORS IN THESE PLANS.

Permit: 18 3313
Date: 10-11-18
By: DJD lsde

**TRUSS PLACEMENT PLAN
AND
CALCULATIONS**

PROJECT: THE GROVE VILLAGE
LOCATION: RIVERSIDE, CA

**CUSTOMER: NEW EVOLUTION
CONSTRUCTION**

Project No. 29073

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PRINT DATE: 9/14/2018

ESR #1311



LARR-25338



23665 Cajalco Road, Perris, CA 92570
(951) 657-7491 phone / (951) 657-0486 fax

Project: The Grove Village

Location: Riverside

Customer: New Evolution Construction

Structural Truss Calculations



The bound truss design drawings, having an electronic seal and signature printed on each page, have been reviewed and approved by the truss design engineer as indicated by the engineers seal and wet signature on this cover page. This review and approval applies solely to the attached truss design drawing pages that are bound together.

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
ENGINEERING	A01	GABLE	1	1	
California TrusFrame LLC., Perris, CA. 92570					8.020 s Aug 1 2016 MiTek Industries, Inc. Fri Sep 14 13:26:46 2018 Page 1
					ID:soHJ1V11xQd7OukVe1BT3Cyexcr-GEIYHy1xKJzs1dbJ6iAlc6AvLzT9ckULu7WoTkYdgXt
-2-3-0		5-6-0	11-0-0	13-3-0	
2-3-0		5-6-0	5-6-0	2-3-0	

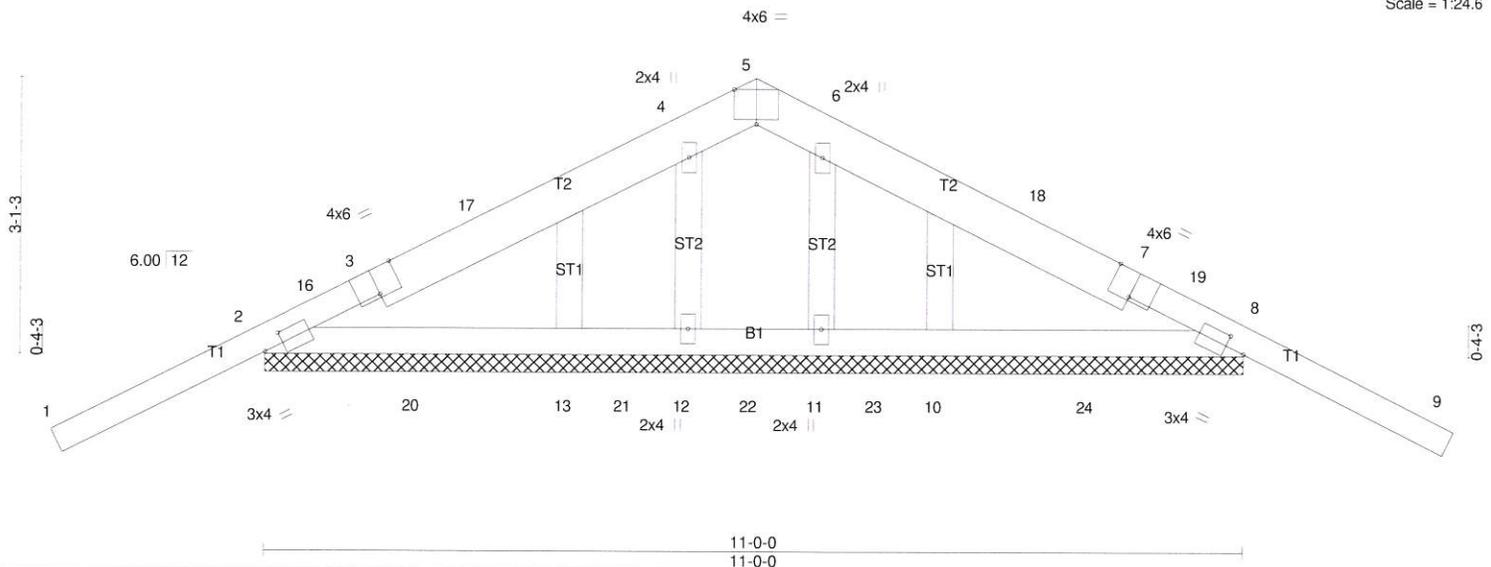


Plate Offsets (X, Y)-- [2:0-2-10,0-1-8], [3:0-3-0,Edge], [5:0-3-0,Edge], [7:0-3-0,Edge], [8:0-2-10,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.41	Vert(LL)	0.00	8	n/r	MT20	220/195
TCDL 14.0	Lumber DOL	1.25	BC 0.32	Vert(CT)	-0.05	9	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.00	11	n/a		
BCDL 10.0	Code IBC2015/TPI2014		Matrix-SH	Wind(LL)	0.05	9	n/r		
								Weight: 55 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 DF No.2 G *Except*
T2: 2x6 DF No.2 G
BOT CHORD 2x4 DF No.2 G
OTHERS 2x4 DF Stud/STD G

BRACING-
TOP CHORD
Structural wood sheathing directly applied or 5-7-2 oc purlins.
BOT CHORD
Rigid ceiling directly applied or 5-11-15 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. All bearings 11-0-0.
(lb) - Max Horz
2=-62(LC 38)
Max Uplift
All uplift 100 lb or less at joint(s) 12, 11 except
2=-622(LC 35), 8=-635(LC 38)
Max Grav
All reactions 250 lb or less at joint(s) except 2=724(LC 48),
8=724(LC 47), 12=359(LC 62), 13=300(LC 61), 11=359(LC 63),
10=300(LC 64)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD
2-16=-1268/1244, 3-16=-1091/1086, 3-17=-974/988,
4-17=-678/716, 4-5=-163/278, 6-18=-659/687, 7-18=-957/1011,
7-19=-1091/1132, 8-19=-1255/1281
BOT CHORD
2-20=-1114/1216, 13-20=-773/851, 13-21=-431/532,
12-21=-298/399, 12-22=-164/266, 11-23=-298/399,
10-23=-431/532, 10-24=-773/874, 8-24=-1105/1216

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=110mph (3-second gust) Vasd=87mph; TCCL=8.4psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) automatic zone and C-C Corner(3) 2-3-13 to 0-8-3, Exterior(2) 0-8-3 to 5-6-0, Corner(3) 5-6-0 to 8-6-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

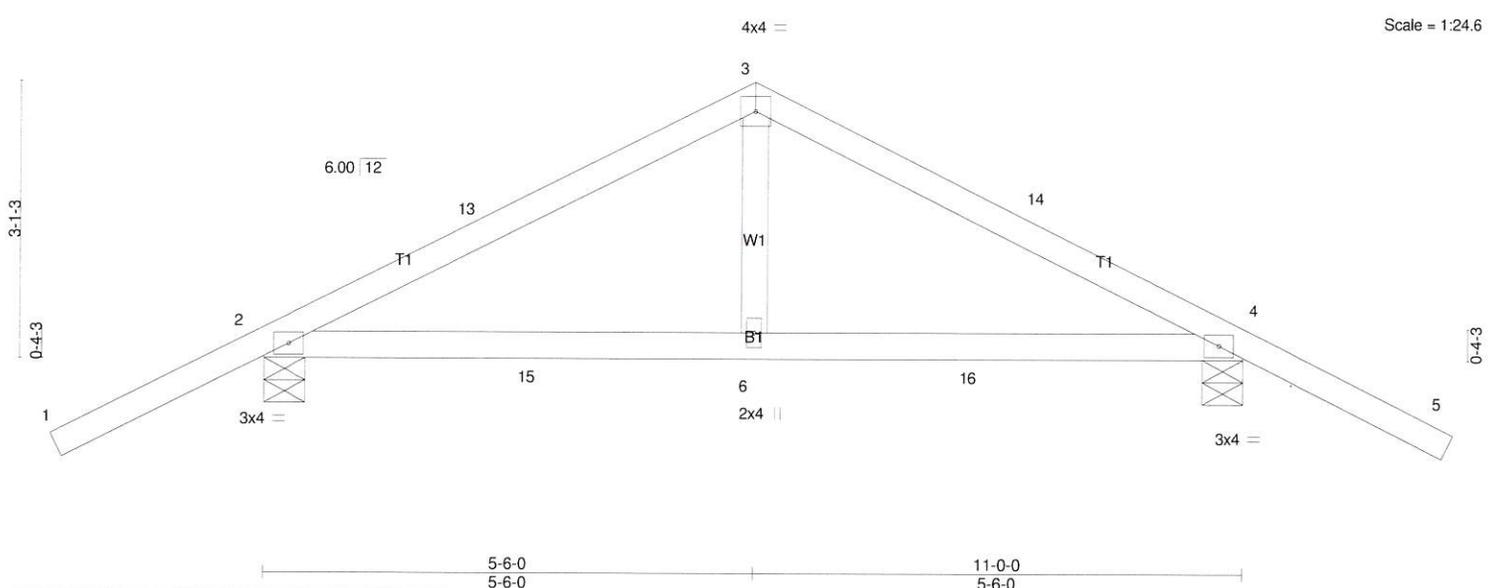
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 1-4-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) A plate rating reduction of 20% has been applied for the green lumber members.
- 9) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- 10) This truss has been designed for a moving concentrated load of 250.0lb live located at all mid panels and at all panel points along the Bottom Chord, nonconcurrent with any other live loads.
- 11) This truss has been designed for a total drag load of 200 plf. Lumber DOL=(1.33) Plate grip DOL=(1.33) Connect truss to resist drag loads along bottom chord from 0-0-0 to 11-0-0 for 200.0 plf.

LOAD CASE(S)
Standard



Job	Truss	Truss Type	Qty	Ply	
ENGINEERING	A02	Common	4	1	

California TrusFrame LLC., Perris, CA. 92570
 Job Reference (optional)
 8.020 s Aug 1 2016 MiTek Industries, Inc. Fri Sep 14 13:26:46 2018 Page 1
 ID:soHJ1V11xQd7OuKVe1BT3Cyexcr-GEiYHy1xKJzs1dbJ6iAlc6AwbzSFckCLu7WoTkYdgXt



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.33	in (loc) l/defl L/d	MT20	220/195
TCDL 14.0	Plate Grip DOL 1.25	BC 0.37	Vert(LL) -0.09 6-9 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.10	Vert(CT) -0.13 6-9 >981 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MSH	Horz(CT) 0.01 4 n/a n/a		
	Code IBC2015/TPI2014			Weight: 42 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 DF No.2 G
 BOT CHORD 2x4 DF No.2 G
 WEBS 2x4 DF Stud/STD G

BRACING-
 TOP CHORD
 Structural wood sheathing directly applied or 6-0-0 oc purlins.
 BOT CHORD
 Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

6) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
 7) This truss has been designed for a moving concentrated load of 250.0lb live located at all mid panels and at all panel points along the Bottom Chord, nonconcurrent with any other live loads.

LOAD CASE(S)
 Standard

REACTIONS. (lb/size)

2 =	641/0-5-8 (min. 0-1-8)
4 =	641/0-5-8 (min. 0-1-8)
Max Horz	
2 =	63(LC 12)
Max Uplift	
2 =	-59(LC 12)
4 =	-59(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD
 2-13=605/13, 3-13=-574/46, 3-14=-574/46, 4-14=-605/13
 BOT CHORD
 2-15=0/514, 6-15=0/514, 6-16=0/514, 4-16=0/514
 WEBS
 3-6=0/373

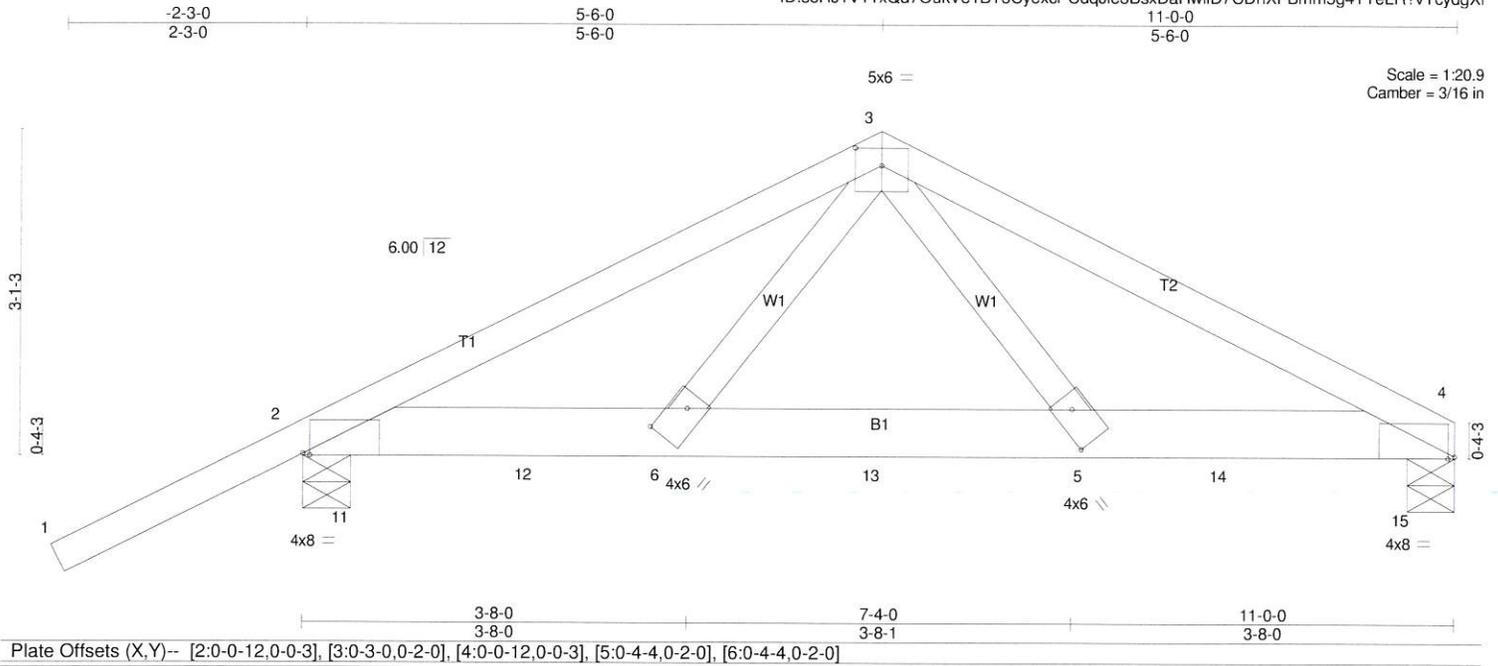
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=110mph (3-second gust) Vasd=87mph; TCDL=8.4psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) automatic zone and C-C Exterior(2) -2-3-13 to 0-6-8, Interior(1) 0-6-8 to 5-6-0, Exterior(2) 5-6-0 to 8-6-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - A plate rating reduction of 20% has been applied for the green lumber members.



Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
ENGINEERING	A03	Common Girder	1	1	

California TrusFrame LLC., Perris, CA. 92570

8.020 s Aug 1 2016 MiTek Industries, Inc. Fri Sep 14 13:26:48 2018 Page 1
 ID:soHJ1V11xQd7OukVe1BT3Cyexcr-CdqJie3BsxDaHwliD7CDhXFBmm5g4TTeLR?vYcydgXr



Scale = 1:20.9
 Camber = 3/16 in

LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	2-0-0	Plate Grip DOL	1.25	TC	0.67	in (loc)	I/defl	L/d	MT20	220/195
TCDL	14.0	Lumber DOL	1.25	BC	0.57	Vert(LL)	-0.08	5-6	>999	240	
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.82	Vert(CT)	-0.24	5-6	>561	180	
BCDL	10.0	Code IBC2015/TPI2014		Matrix-MSH		Horz(CT)	0.05	4	n/a	n/a	
										Weight: 52 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 DF No.2 G
 BOT CHORD 2x6 DF SS G
 WEBS 2x4 DF Stud/STD G

BRACING-
 TOP CHORD
 Structural wood sheathing directly applied or 2-7-6 oc purlins.
 BOT CHORD
 Rigid ceiling directly applied or 8-3-12 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size)

4	=	2391/0-5-8 (min. 0-2-11)
2	=	2298/0-5-8 (min. 0-2-9)
Max Horz		
2	=	86(LC 35)
Max Uplift		
4	=	-685(LC 30)
2	=	-699(LC 27)
Max Grav		
4	=	2543(LC 16)
2	=	2375(LC 15)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD
 2-3=-4069/1183, 3-4=-4174/1218
 BOT CHORD
 2-11=-1198/3652, 2-12=-1050/3620, 6-12=-815/3620,
 6-13=-444/2405, 5-13=-444/2405, 5-14=-805/3695,
 4-14=-1038/3695, 4-15=-1200/3680
 WEBS
 3-5=-204/2220, 3-6=-168/2107

NOTES-
 1) Unbalanced roof live loads have been considered for this design.
 2) Wind: ASCE 7-10; Vult=110mph (3-second gust) Vasd=87mph; TC DL=8.4psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) automatic zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) A plate rating reduction of 20% has been applied for the green lumber members.
- 6) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- 7) This truss has been designed for a moving concentrated load of 250.0lb live located at all mid panels and at all panel points along the Bottom Chord, nonconcurrent with any other live loads.
- 8) This truss has been designed for a total drag load of 180 plf. Lumber DOL=(1.33) Plate grip DOL=(1.33) Connect truss to resist drag loads along bottom chord from 0-0-0 to 11-0-0 for 180.0 plf.
- 9) Girder carries tie-in span(s): 18-5-8 from 1-0-0 to 11-0-0
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S)

Standard
 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
 Uniform Loads (plf)
 Vert: 1-3=-68, 3-4=-68, 2-10=-20, 4-10=-372(B=-352)



Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
ENGINEERING	B01	GABLE	1	1	

California TrusFrame LLC., Perris, CA. 92570

8.020 s Aug 1 2016 MiTek Industries, Inc. Fri Sep 14 13:26:50 2018 Page 2
ID:soHJ1V11xQd7OukVe1BT3Cyexcr-8?x37K4ROYTHWEv4LYEhmyKbxao2YWOwplU0cVydgXp

LOAD CASE(S)
Standard



Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
ENGINEERING	B02	COMMON	2	1	
California TrusFrame LLC., Perris, CA. 92570					8.020 s Aug 1 2016 MiTek Industries, Inc. Fri Sep 14 13:26:50 2018 Page 1
-2-3-0 2-3-0					4-8-1 4-8-1
9-4-8 4-8-7					14-0-15 4-8-7
					18-5-8 4-4-9
					ID:soHJ1V11xQd7OukVe1BT3Cyexcr-8?x37K4ROYTHWEv4LYEhmyKcEajtYW1wplU0cVydgXp

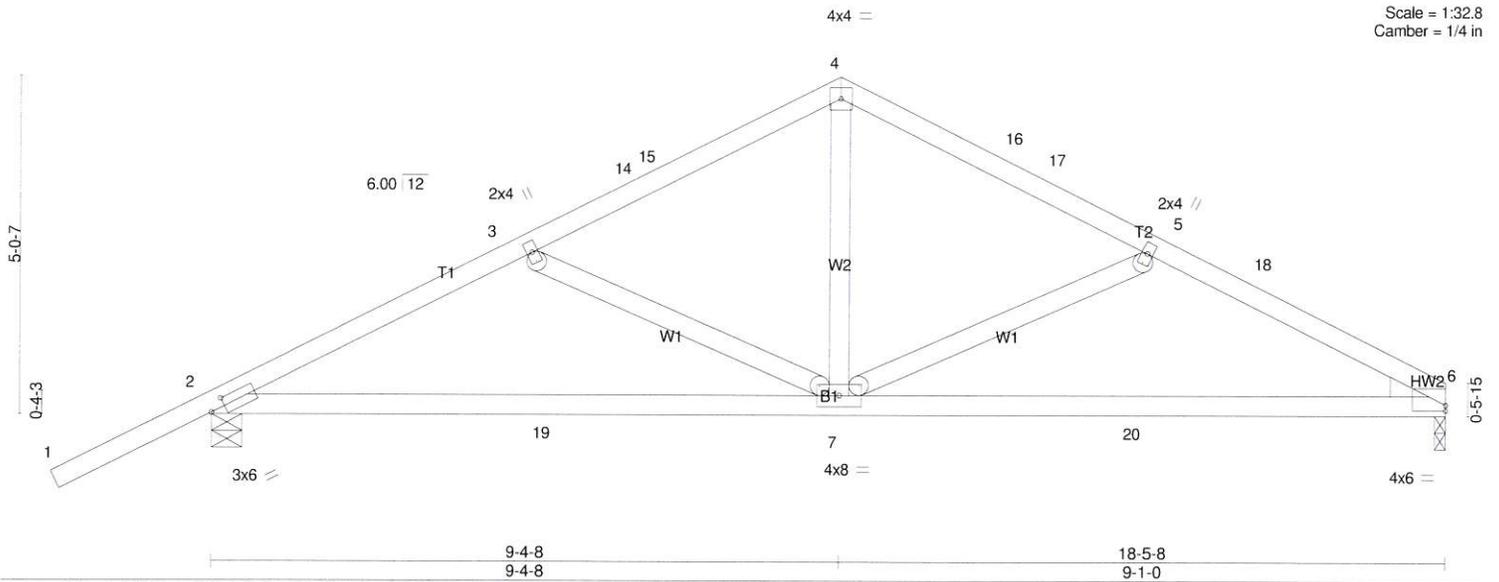


Plate Offsets (X,Y)-- [2:0-2-9,0-1-8], [6:Edge,0-1-0]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.35	Vert(LL)	-0.37	7-13	>605	MT20	220/195
TCDL 14.0	Plate Grip DOL 1.25	BC 0.71	Vert(CT)	-0.61	7-13	>363		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.24	Horz(CT)	0.05	6	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MSH						
	Code IBC2015/TP12014						Weight: 77 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 DF No.2 G
 BOT CHORD 2x4 DF No.2 G
 WEBS 2x4 DF Stud/STD G
 WEDGE
 Right: 2x4 DF Stud/Std -G

BRACING-
 TOP CHORD
 Structural wood sheathing directly applied or 4-11-8 oc purlins.
 BOT CHORD
 Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- A plate rating reduction of 20% has been applied for the green lumber members.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6.
- This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- This truss has been designed for a moving concentrated load of 250.0lb live located at all mid panels and at all panel points along the Bottom Chord, nonconcurrent with any other live loads.

REACTIONS. (lb/size)

6	=	862/0-2-0 (min. 0-1-8)
2	=	1039/0-5-8 (min. 0-1-8)
Max Horz		
2	=	116(LC 12)
Max Uplift		
2	=	-11(LC 12)

LOAD CASE(S)
 Standard

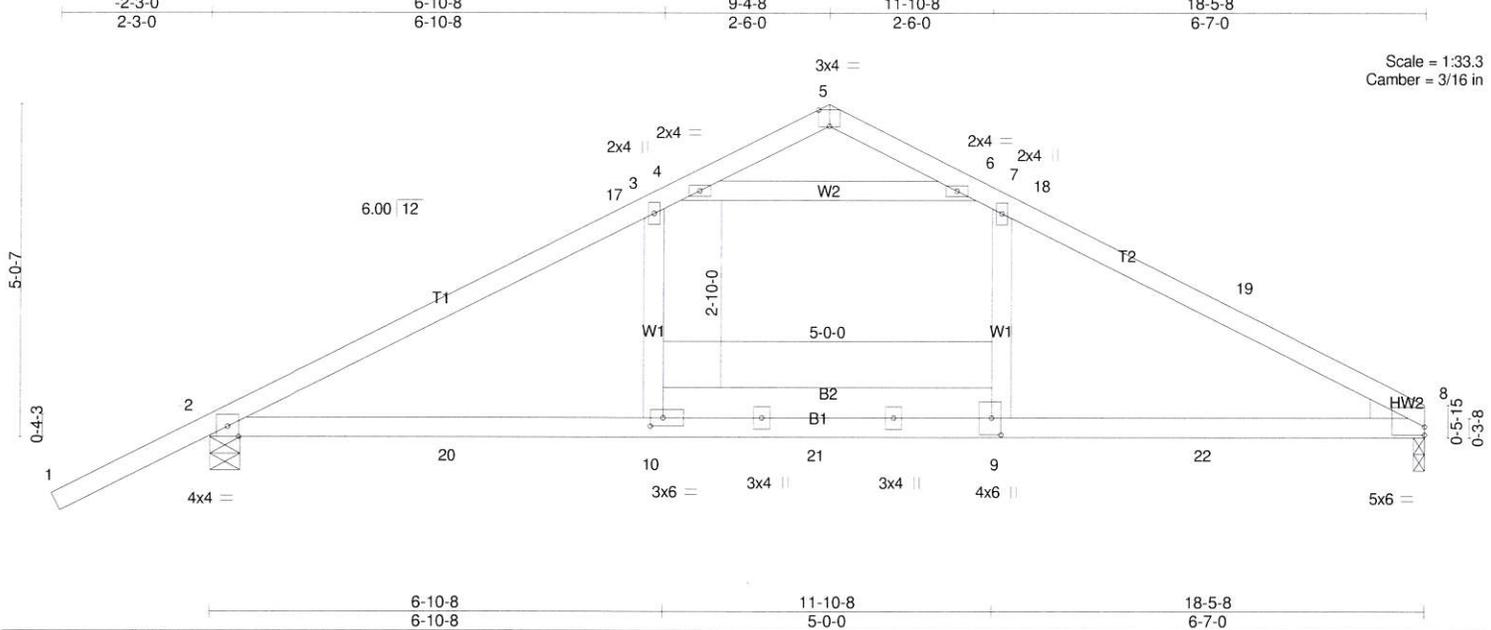
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD
 2-3=-1495/0, 3-14=-1109/0, 14-15=-1041/0, 4-15=-1014/0,
 4-16=-1003/0, 16-17=-1029/0, 5-17=-1106/0, 5-18=-1369/0,
 6-18=-1477/0
BOT CHORD
 2-19=0/1297, 7-19=0/1297, 7-20=0/1275, 6-20=0/1275
WEBS
 4-7=0/606, 5-7=-423/121, 3-7=-440/98

NOTES-
 1) Unbalanced roof live loads have been considered for this design.
 2) Wind: ASCE 7-10; Vult=110mph (3-second gust) Vasd=87mph; TC DL=8.4psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) automatic zone and C-C Exterior(2) -2-3-13 to 0-6-8, Interior(1) 0-6-8 to 9-4-8, Exterior(2) 9-4-8 to 12-4-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 3) 120.0lb AC unit load placed on the top chord, 9-2-12 from left end, supported at two points, 5-0-0 apart.



Job	Truss	Truss Type	Qty	Ply	
ENGINEERING	B02A	COMMON	3	1	

California TrusFrame LLC., Perris, CA. 92570
 Job Reference (optional)
 8.020 s Aug 1 2016 MiTek Industries, Inc. Fri Sep 14 13:26:51 2018 Page 1
 ID:soHJ11v1xQd7OukVe1BT3Cyexrc-CVVRKg539sb88OUHvGmwJAtkd_4IHwC41PDZ9xydgXo



Scale = 1:33.3
 Camber = 3/16 in

Plate Offsets (X,Y)-- [5:0-2-0,Edge], [8:Edge,0-1-8], [9:0-3-0,0-1-12], [10:0-2-4,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.57	Vert(LL)	-0.30 10-16	>748	240	MT20	220/195
TCDL 14.0	Lumber DOL	1.25	BC 0.70	Vert(CT)	-0.48 10-16	>464	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.44	Horz(CT)	0.05 8	n/a	n/a		
BCDL 10.0	Code IBC2015/TPI2014		Matrix-MSH						
								Weight: 83 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 DF No.2 G
 BOT CHORD 2x4 DF No.2 G *Except*
 B2: 2x6 DF No.2 G
 WEBS 2x4 DF Stud/STD G
 WEDGE
 Right: 2x4 DF Stud/Std -G

BRACING-
 TOP CHORD
 Structural wood sheathing directly applied or 3-4-13 oc purlins.
 BOT CHORD
 Rigid ceiling directly applied or 4-9-1 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size)

8	=	863/0-2-0 (min. 0-1-9)
2	=	1039/0-5-8 (min. 0-1-11)
Max Horz		
2	=	116(LC 36)
Max Uplift		
8	=	-807(LC 38)
2	=	-876(LC 35)
Max Grav		
8	=	1337(LC 47)
2	=	1434(LC 48)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD
 2-17=-2844/1740, 3-17=-1521/541, 3-4=-1418/591, 4-5=-440/490,
 5-6=-507/539, 6-7=-1330/511, 7-18=-1420/453, 18-19=-1951/1080,
 8-19=-2743/1652
 BOT CHORD
 2-20=-1430/2164, 10-20=-572/1306, 10-21=-1401/2216,
 9-21=-1472/2428, 9-22=-1472/2428, 8-22=-1472/2428
 WEBS
 3-10=0/355, 7-9=0/356, 4-6=-1265/96

NOTES-
 1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=110mph (3-second gust) Vasd=87mph; TCDL=8.4psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) automatic zone and C-C Exterior(2) -2-3-13 to 0-6-8, Interior(1) 0-6-8 to 9-4-8, Exterior(2) 9-4-8 to 12-4-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 120.0lb AC unit load placed on the bottom chord, 9-4-8 from left end, supported at two points, 5-0-0 apart.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) A plate rating reduction of 20% has been applied for the green lumber members.
- 7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 8.
- 8) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- 9) This truss has been designed for a moving concentrated load of 250.0lb live load located at all mid panels and at all panel points along the Bottom Chord, nonconcurrent with any other live loads.
- 10) This truss has been designed for a total drag load of 180 plf. Lumber DOL=(1.33) Plate grip DOL=(1.33) Connect truss to resist drag loads along bottom chord from 0-0-0 to 9-2-12 for 360.0 plf.

LOAD CASE(S)
 Standard

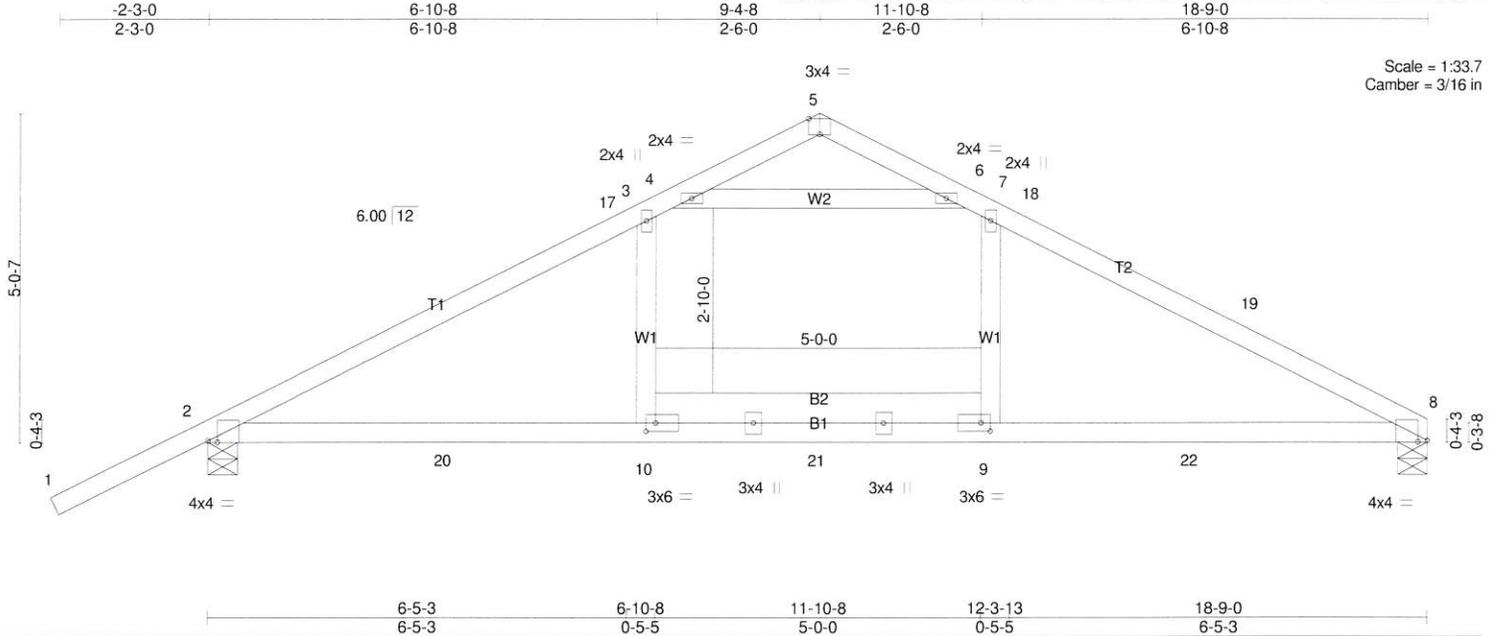


Job	Truss	Truss Type	Qty	Ply
ENGINEERING	B03	Common	1	1

California TrusFrame LLC., Perris, CA. 92570

Job Reference (optional)

8.020 s Aug 1 2016 MiTek Industries, Inc. Fri Sep 14 13:26:52 2018 Page 1
 ID:soHJ1V11xQd7OukVe1BT3Cyexcr-4O3pY06iw9j?lY3TSzH9rNQuIORY0M1DG3z7hNydGxN



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.63	Vert(LL)	-0.29 9-13	>777	240	MT20	220/195
TCDL 14.0	Lumber DOL	1.25	BC 0.61	Vert(CT)	-0.50 9-13	>450	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.46	Horz(CT)	0.04 8	n/a	n/a		
BCDL 10.0	Code IBC2015/TPI2014		Matrix-MSH					Weight: 83 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 DF No.2 G
 BOT CHORD 2x4 DF No.2 G *Except*
 B2: 2x6 DF No.2 G
 WEBS 2x4 DF Stud/STD G

BRACING-

TOP CHORD
 Structural wood sheathing directly applied or 4-1-15 oc purlins.
 BOT CHORD
 Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) A plate rating reduction of 20% has been applied for the green lumber members.
- 7) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- 8) This truss has been designed for a moving concentrated load of 250.0lb live located at all mid panels and at all panel points along the Bottom Chord, nonconcurrent with any other live loads.

LOAD CASE(S)
 Standard

REACTIONS. (lb/size)

8 = 875/0-5-8 (min. 0-1-8)
 2 = 1052/0-5-8 (min. 0-1-8)
 Max Horz
 2 = 113(LC 12)
 Max Uplift
 2 = -11(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD
 2-17=-1452/0, 3-17=-1264/0, 3-4=-1166/10, 6-7=-1162/20,
 7-18=-1259/0, 18-19=-1356/0, 8-19=-1447/0
 BOT CHORD
 2-20=0/1213, 10-20=0/1213, 9-21=0/1213,
 9-22=0/1213, 8-22=0/1213
 WEBS
 3-10=0/367, 7-9=0/366, 4-6=-1343/13

NOTES-

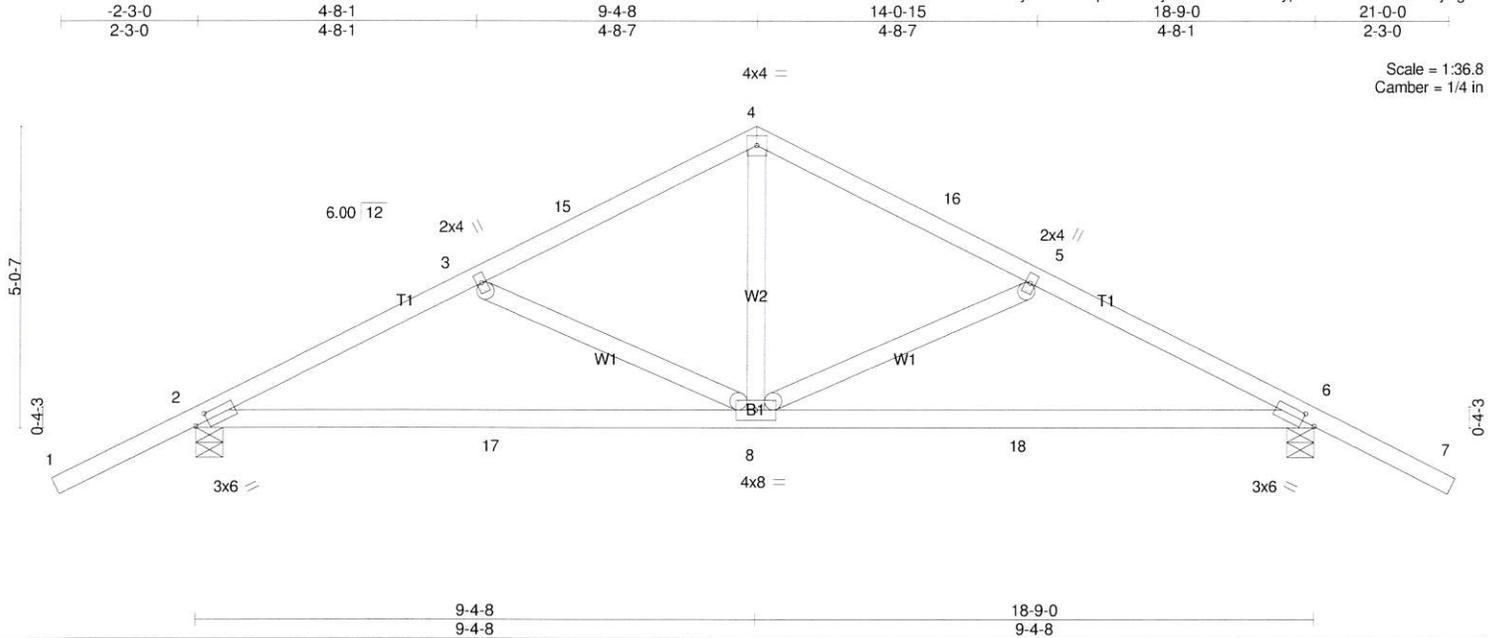
- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=110mph (3-second gust) Vasd=87mph; TCDL=8.4psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) automatic zone and C-C Exterior(2) -2-3-13 to 0-6-8, Interior(1) 0-6-8 to 9-4-8, Exterior(2) 9-4-8 to 12-4-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 120.0lb AC unit load placed on the bottom chord, 9-4-8 from left end, supported at two points, 5-0-0 apart.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
ENGINEERING	B04	Common	4	1	

California TrusFrame LLC., Perris, CA. 92570

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Scale = 1:36.8
 Camber = 1/4 in

Plate Offsets (X,Y)-- [2:0-2-9,0-1-8], [6:0-2-9,0-1-8]

LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.35	in (loc) l/defl L/d	MT20	220/195
TCDL 14.0	Plate Grip DOL 1.25	BC 0.70	Vert(LL) -0.36 8-14 >618 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.23	Vert(CT) -0.60 8-14 >376 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MSH	Horz(CT) 0.04 6 n/a n/a		
	Code IBC2015/TPI2014			Weight: 80 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 DF No.2 G
 BOT CHORD 2x4 DF No.2 G
 WEBS 2x4 DF Stud/STD G

BRACING-
 TOP CHORD
 Structural wood sheathing directly applied or 5-3-1 oc purlins.
 BOT CHORD
 Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

- 5) A plate rating reduction of 20% has been applied for the green lumber members.
- 6) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- 7) This truss has been designed for a moving concentrated load of 250.0lb live located at all mid panels and at all panel points along the Bottom Chord, nonconcurrent with any other live loads.

LOAD CASE(S)
 Standard

REACTIONS. (lb/size)

2	=	982/0-5-8 (min. 0-1-8)
6	=	982/0-5-8 (min. 0-1-8)
Max Horz		
2	=	94(LC 16)
Max Uplift		
2	=	-71(LC 12)
6	=	-71(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD
 2-3=-1362/77, 3-15=-1002/35, 4-15=-923/58, 4-16=-923/58,
 5-16=-1002/35, 5-6=-1362/78
 BOT CHORD
 2-17=-62/1175, 8-17=-62/1175, 8-18=0/1175, 6-18=0/1175
 WEBS
 4-8=0/592, 5-8=-398/141, 3-8=-398/141

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=110mph (3-second gust) Vasd=87mph; TCDL=8.4psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) automatic zone and C-C Exterior(2) -2-3-13 to 0-6-8, Interior(1) 0-6-8 to 9-4-8, Exterior(2) 9-4-8 to 12-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.



Job	Truss	Truss Type	Qty	Ply	
ENGINEERING	B05	GABLE	1	1	

California TrusFrame LLC., Perris, CA. 92570
 Job Reference (optional)
 8.020 s Aug 1 2016 MiTek Industries, Inc. Fri Sep 14 13:26:54 2018 Page 1
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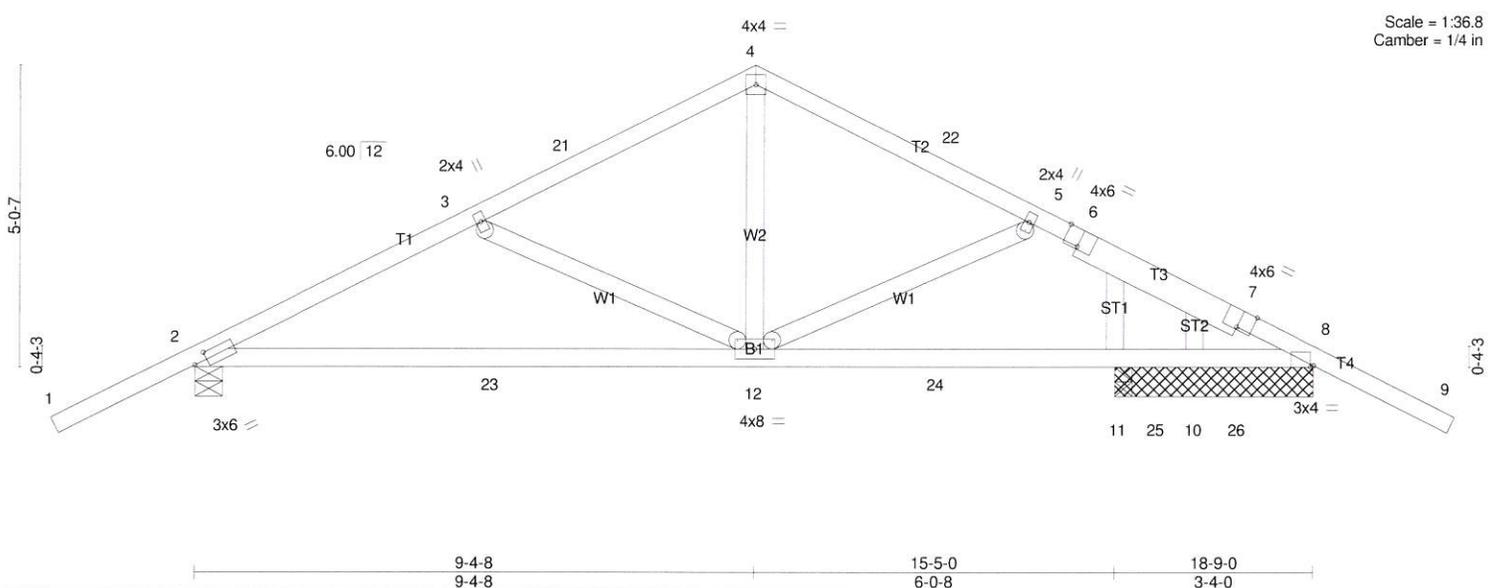


Plate Offsets (X,Y)-- [2:0-2-9,0-1-8], [6:0-3-0,Edge], [7:0-3-0,Edge], [8:0-0-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.35	Vert(LL)	-0.34	12-17	>542	MT20	220/195
TCDL 14.0	Plate Grip DOL 1.25	BC 0.70	Vert(CT)	-0.63	12-17	>295		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.21	Horz(CT)	0.04	8	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MSH						
	Code IBC2015/TPI2014						Weight: 85 lb	FT = 20%

- LUMBER-**
 TOP CHORD 2x4 DF No.2 G *Except*
 T3: 2x6 DF No.2 G
 BOT CHORD 2x4 DF No.2 G
 WEBS 2x4 DF Stud/STD G
 OTHERS 2x4 DF Stud/STD G

- BRACING-**
 TOP CHORD
 Structural wood sheathing directly applied or 5-4-4 oc purlins.
 BOT CHORD
 Rigid ceiling directly applied or 10-0-0 oc bracing.
- MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

- REACTIONS.** All bearings 3-4-0 except (jt=length) 2=0-5-8, 11=0-3-8, 11=0-3-8.
 (lb) - Max Horz
 2= -94(LC 13)
 Max Uplift
 All uplift 100 lb or less at joint(s) 2, 11 except 8=-120(LC 13), 10=-236(LC 29)
 Max Grav
 All reactions 250 lb or less at joint(s) 10, 11 except
 2=965(LC 1), 8=914(LC 1), 11=447(LC 29), 8=914(LC 1)

- FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD
 2-3=-1305/111, 3-21=-954/63, 4-21=-875/85, 4-22=-875/99,
 5-22=-951/76, 5-6=-1175/122, 6-7=-1263/117, 7-8=-1283/95
 BOT CHORD
 2-23=-79/1138, 12-23=-79/1138, 12-24=-28/1092, 11-24=-28/1092,
 11-25=-28/1092, 10-25=-28/1092, 10-26=-28/1092,
 8-26=-28/1092
 WEBS
 4-12=0/542, 5-12=-359/168, 3-12=-404/138

- NOTES-**
 1) Unbalanced roof live loads have been considered for this design.
 2) Wind: ASCE 7-10; Vult=110mph (3-second gust) Vasd=87mph; TCDL=8.4psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) automatic zone and C-C Exterior(2) -2-3-13 to 0-6-8, Interior(1) 0-6-8 to 9-4-8, Exterior(2) 9-4-8 to 12-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 4) Gable studs spaced at 1-4-0 oc.
 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 7) A plate rating reduction of 20% has been applied for the green lumber members.
 8) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
 9) This truss has been designed for a moving concentrated load of 250.0lb live located at all mid panels and at all panel points along the Bottom Chord, nonconcurrent with any other live loads.

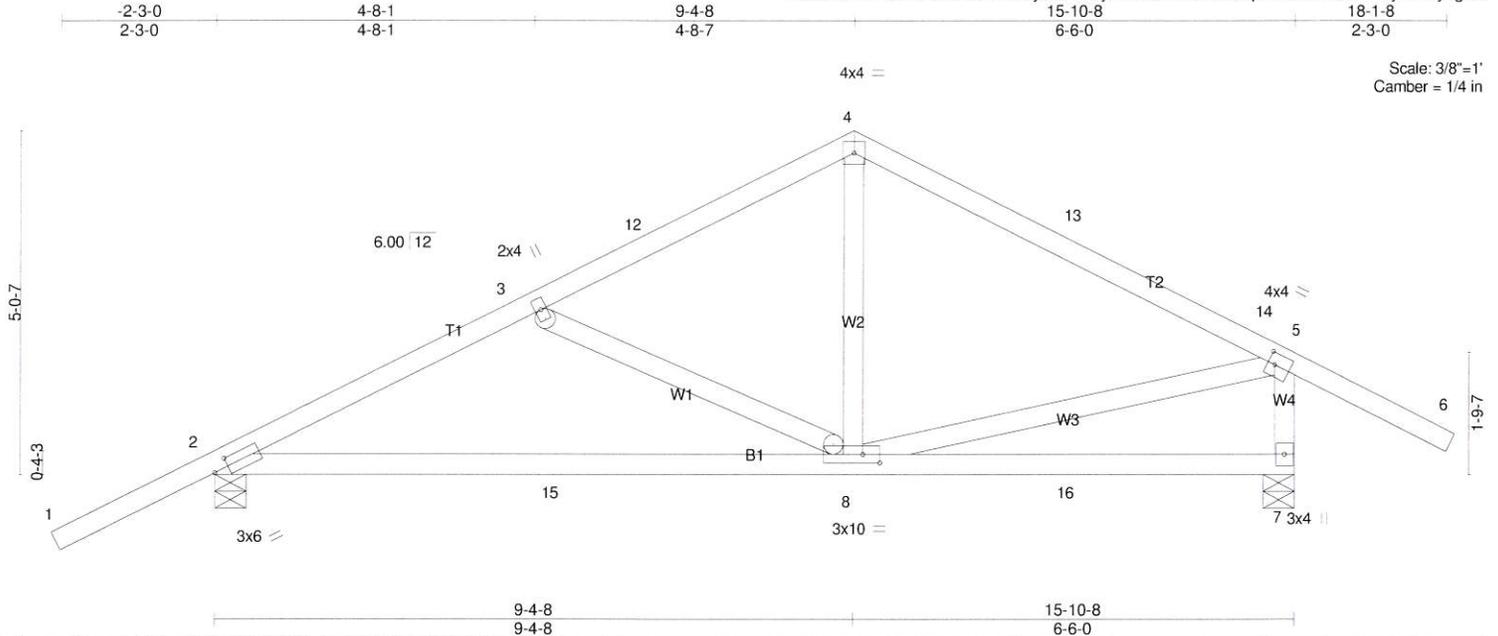
LOAD CASE(S)
 Standard



Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
ENGINEERING	B06	Common	3	1	

California TrusFrame LLC., Perris, CA. 92570

8.020 s Aug 1 2016 MiTek Industries, Inc. Fri Sep 14 13:26:55 2018 Page 1
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.44	Vert(LL) -0.35	8-11	>544	240	MT20	220/195
TCDL 14.0	Plate Grip DOL 1.25	BC 0.69	Vert(CT) -0.60	8-11	>314	180		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.21	Horz(CT) 0.02	7	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MSH					Weight: 76 lb	FT = 20%
	Code IBC2015/TPI2014							

LUMBER-
 TOP CHORD 2x4 DF No.2 G
 BOT CHORD 2x4 DF No.2 G
 WEBS 2x4 DF Stud/STD G

BRACING-
 TOP CHORD
 Structural wood sheathing directly applied or 5-11-12 oc purlins, except end verticals.
 BOT CHORD
 Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size)
 2 = 848/0-5-8 (min. 0-1-8)
 7 = 861/0-5-8 (min. 0-1-8)
 Max Horz
 2 = 109(LC 11)
 Max Uplift
 2 = -75(LC 12)
 7 = -52(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD
 2-3=-1050/89, 3-12=-701/46, 4-12=-624/68, 4-13=-624/65,
 13-14=-717/34, 5-14=-733/17, 5-7=-811/191
 BOT CHORD
 2-15=-74/909, 8-15=-74/909
 WEBS
 3-8=-404/137, 4-8=0/380, 5-8=0/512

NOTES-
 1) Unbalanced roof live loads have been considered for this design.
 2) Wind: ASCE 7-10; Vult=110mph (3-second gust) Vasd=87mph; TCDL=8.4psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) automatic zone and C-C Exterior(2) -2-3-13 to 0-6-8, Interior(1) 0-6-8 to 9-4-8, Exterior(2) 9-4-8 to 12-4-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

5) A plate rating reduction of 20% has been applied for the green lumber members.
 6) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
 7) This truss has been designed for a moving concentrated load of 250.0lb live located at all mid panels and at all panel points along the Bottom Chord, nonconcurrent with any other live loads.

LOAD CASE(S)
 Standard



Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
ENGINEERING	B07	GABLE	1	1	

California TrusFrame LLC., Perris, CA. 92570

8.020 s Aug 1 2016 MiTek Industries, Inc. Fri Sep 14 13:26:56 2018 Page 1
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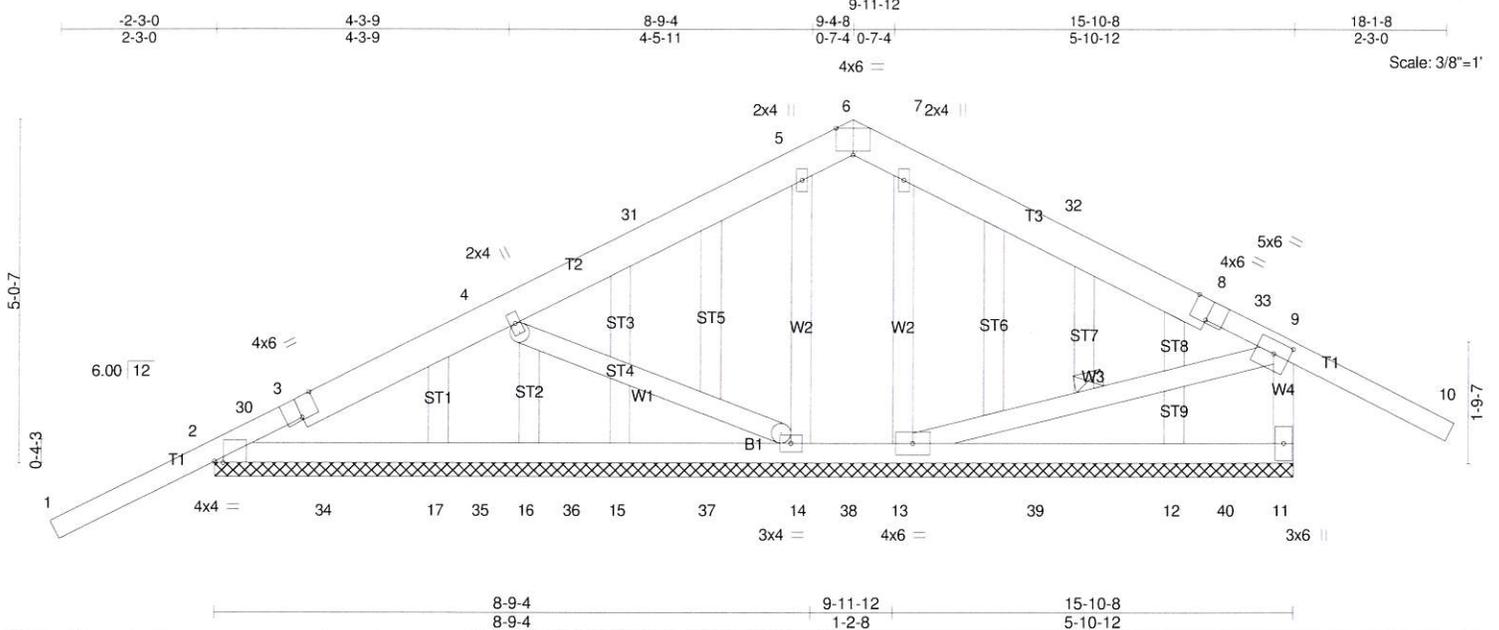


Plate Offsets (X,Y)-- [2:0-1-8,Edge], [3:0-3-0,Edge], [6:0-3-0,Edge], [8:0-3-0,Edge], [9:0-2-12,0-2-4]

LOADING (psf)	SPACING-	2-0-0	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.77	Vert(LL)	0.00	9	n/r	MT20	220/195
TCDL 14.0	Lumber DOL	1.25	BC 0.40	Vert(CT)	-0.07	10	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.67	Horz(CT)	0.02	11	n/a		
BCDL 10.0	Code IBC2015/TPI2014		Matrix-SH	Wind(LL)	0.08	9-10	n/r		
								Weight: 109 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 DF No.2 G *Except*
T2,T3: 2x6 DF No.2 G
BOT CHORD 2x4 DF No.2 G
WEBS 2x4 DF Stud/STD G
OTHERS 2x4 DF Stud/STD G

BRACING-

TOP CHORD
Structural wood sheathing directly applied or 3-11-5 oc purlins, except end verticals.
BOT CHORD
Rigid ceiling directly applied or 4-4-12 oc bracing.
WEBS
1 Row at midpt 9-13

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. All bearings 15-10-8.

(lb) - Max Horz
2= 108(LC 11)
Max Uplift
All uplift 100 lb or less at joint(s) 16 except 2=-1131(LC 35), 11=-1336(LC 38), 14=-240(LC 35), 13=-526(LC 37)
Max Grav
All reactions 250 lb or less at joint(s) except 2=1249(LC 48), 11=1374(LC 33), 14=460(LC 51), 13=652(LC 48), 15=301(LC 65), 16=261(LC 64), 17=295(LC 63), 12=324(LC 68)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD
2-30=-2448/2354, 3-30=-2099/2031, 3-4=-1476/1415,
4-31=-1377/1384, 5-31=-484/620, 6-7=-306/379, 7-32=-930/1033,
8-32=-1535/1540, 8-33=-1700/1743, 9-33=-1849/1886,
9-11=-1345/1447
BOT CHORD
2-34=-2063/2221, 17-34=-1725/1752, 17-35=-1330/1431,
16-35=-1170/1233, 16-36=-1010/1111, 15-36=-722/823,
15-37=-690/791, 14-37=-333/450, 14-38=-164/254,
13-38=-344/434, 13-39=-1327/1353, 12-39=-825/873,
12-40=-367/393
WEBS
4-14=-332/287, 5-14=-301/323, 7-13=-319/183, 9-13=-1741/1746

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=110mph (3-second gust) Vasd=87mph; TC DL=8.4psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) automatic zone and C-C Corner(3) -2-3-13 to 0-8-3, Exterior(2) 0-8-3 to 9-4-8, Corner(3) 9-4-8 to 12-4-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 1-4-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) A plate rating reduction of 20% has been applied for the green lumber members.
- 9) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- 10) This truss has been designed for a moving concentrated load of 250.0lb live located at all mid panels and at all panel points along the Bottom Chord, nonconcurrent with any other live loads.
- 11) This truss has been designed for a total drag load of 240 plf. Lumber DOL=(1.33) Plate grip DOL=(1.33) Connect truss to resist drag loads along bottom chord from 0-0-0 to 15-10-8 for 240.0 plf.

LOAD CASE(S)

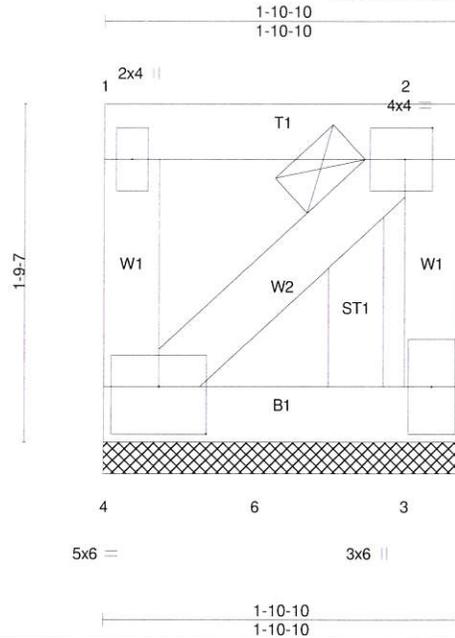
Standard



Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
ENGINEERING	PB-1	GABLE	1	1	

California TrusFrame LLC., Perris, CA. 92570

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Scale = 1:11.6

Plate Offsets (X,Y)-- [2:0-1-12,0-2-0], [4:0-3-0,0-3-0]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.41	Vert(LL)	n/a	-	n/a	MT20	220/195
TCDL 14.0	Plate Grip DOL 1.25	BC 0.15	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.58	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 12 lb	FT = 20%
	Code IBC2015/TPI2014							

LUMBER-

TOP CHORD 2x4 DF No.2 G
 BOT CHORD 2x4 DF No.2 G
 WEBS 2x4 DF Stud/STD G
 OTHERS 2x4 DF Stud/STD G

BRACING-

TOP CHORD
 6-0-0 oc max: 1-2, except end verticals.
 BOT CHORD
 Rigid ceiling directly applied or 6-0-0 oc bracing.

MItek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size)

4 = 70/1-10-10 (min. 0-1-8)
 3 = 70/1-10-10 (min. 0-1-8)
 Max Horz
 4 = -52(LC 28)
 Max Uplift
 4 = -1024(LC 27)
 3 = -1024(LC 30)
 Max Grav
 4 = 1034(LC 34)
 3 = 1034(LC 31)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD
 1-2=-980/989, 2-3=-1077/1100
 BOT CHORD
 4-6=-973/981, 3-6=-549/557
 WEBS
 2-4=-1525/1525

NOTES-

- 1) Wind: ASCE 7-10; Vult=110mph (3-second gust) Vasd=87mph; TCDL=8.4psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) automatic zone and C-C Corner(3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Provide adequate drainage to prevent water ponding.

- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 1-4-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) A plate rating reduction of 20% has been applied for the green lumber members.
- 9) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- 10) This truss has been designed for a moving concentrated load of 250.0lb live located at all mid panels and at all panel points along the Bottom Chord, nonconcurrent with any other live loads.
- 11) This truss has been designed for a total drag load of 665 plf. Lumber DOL=(1.33) Plate grip DOL=(1.33) Connect truss to resist drag loads along bottom chord from 0-0-0 to 1-10-10 for 665.1 plf.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S)
 Standard



Job	Truss	Truss Type	Qty	Ply
ENGINEERING	PB-2	GABLE	3	1

California TrusFrame LLC., Perris, CA. 92570
 Job Reference (optional)
 8.020 s Aug 1 2016 MiTek Industries, Inc. Fri Sep 14 13:26:58 2018 Page 1

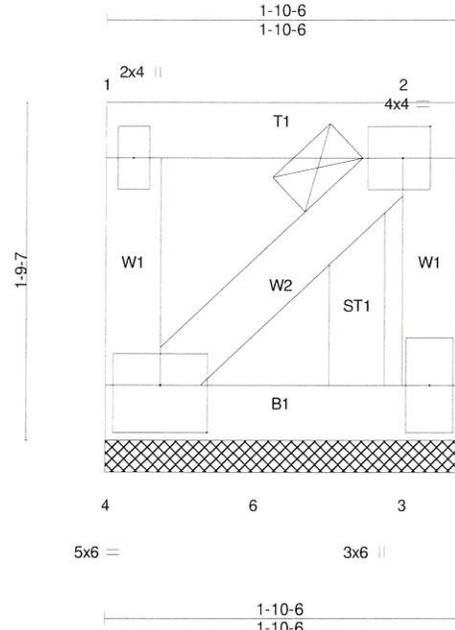


Plate Offsets (X,Y)-- [2:0-1-12,0-2-0], [4:0-3-0,0-3-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.41	Vert(LL)	n/a	-	n/a	MT20	220/195
TCDL 14.0	Lumber DOL	1.25	BC 0.15	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.58	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IBC2015/TPI2014		Matrix-P					Weight: 12 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 DF No.2 G
 BOT CHORD 2x4 DF No.2 G
 WEBS 2x4 DF Stud/STD G
 OTHERS 2x4 DF Stud/STD G

BRACING-

TOP CHORD
 6-0-0 oc max: 1-2, except end verticals.
 BOT CHORD
 Rigid ceiling directly applied or 6-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size)

4 = 69/1-10-6 (min. 0-1-8)
 3 = 69/1-10-6 (min. 0-1-8)
 Max Horz
 4 = -52(LC 27)
 Max Uplift
 4 = -1024(LC 27)
 3 = -1024(LC 30)
 Max Grav
 4 = 1034(LC 34)
 3 = 1034(LC 31)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD
 1-2=-968/977, 2-3=-1077/1100
 BOT CHORD
 4-6=-961/969, 3-6=-542/550
 WEBS
 2-4=-1516/1516

NOTES-

- 1) Wind: ASCE 7-10; Vult=110mph (3-second gust) Vasd=87mph; TCCL=8.4psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) automatic zone and C-C Corner(3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Provide adequate drainage to prevent water ponding.

- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 1-4-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) A plate rating reduction of 20% has been applied for the green lumber members.
- 9) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- 10) This truss has been designed for a moving concentrated load of 250.0lb live located at all mid panels and at all panel points along the Bottom Chord, nonconcurrent with any other live loads.
- 11) This truss has been designed for a total drag load of 665 plf. Lumber DOL=(1.33) Plate grip DOL=(1.33) Connect truss to resist drag loads along bottom chord from 0-0-0 to 1-10-6 for 665.0 plf.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S)
 Standard





MiTek USA, Inc.
14515 North Outer Forty Drive
Suite 300
Chesterfield, MO 63017-5746
Telephone 314/434-1200
Fax 314/434-9110

January 01, 2015

To whom it may concern:

Re: Turb-O-Web Trusses

This letter is to certify that MiTek USA, Inc. assumes responsibility for the structural integrity of the sealed Turb-O-Web Truss designs provided by our professional engineers based on the parameters stated on the face of the engineering designs.

Design procedures for both lumber design and plate connections are in full compliance with the American National Standard "National Design Standard for Metal Plate Connected Wood Truss Construction" ANSI/TPI 1-2007.

Section 104.11 Alternative materials, design, and methods of construction and equipment, of the 2012 International Building Code states: *"The provision of this code are not intended to prevent the installation of any material or prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been approved... and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code..."*

We hereby certify that the Turb-O-Web is an acceptable alternative to conventional truss webs with equivalent performance.

Sincerely

A handwritten signature in black ink that reads "Stephen W. Cabler".

Stephen W. Cabler, P.E.
Senior Vice President
Engineering and Technical Services

eg

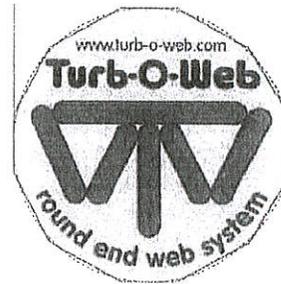
Turb-O-Web USA, Inc

2665 N Atlantic Ave # 400,
Daytona Beach, Florida 32118

Toll Free: 1 (888) 750 6005

Fax : (321) 747 0306

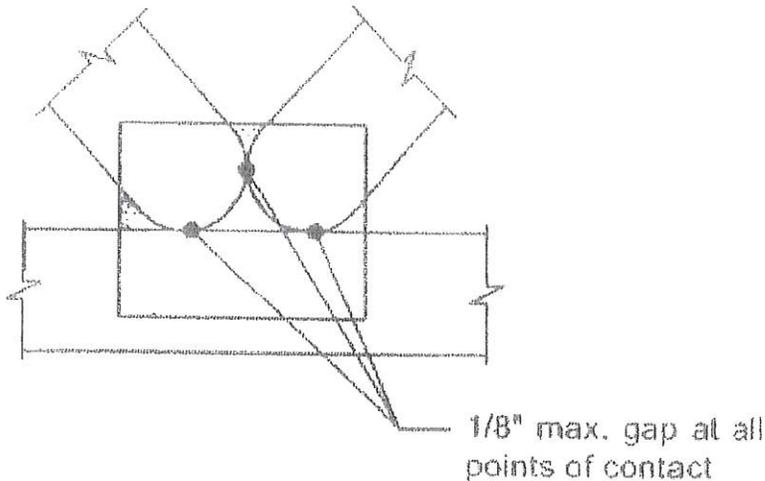
Email: john@turb-o-web.com Website: www.turb-o-web.com



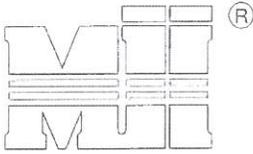
The Turb-O-Web™ system is protected in the United States by the following US patents:-
6,176,060; # 6,249,972; # 6,415,511; # 6,688,067; and # 6,842,981 with further applications pending.
The use of the Turb-O-Web™ system requires a license from Turb-O-Web USA, Inc.

ANSI-TPI 1-2002 Clause 3.7.6.1 limits maximum gaps in all joints (not being floor truss chord splices) to be no more than 1/8". This clause provides a method of measurement for "joints designed with single points of contact between adjacent members as shown on the Truss Design Drawing, the maximum gap between all contact points shall not exceed 1/8".

Reference is then made to Figure 3.7-3. The relevant portion of Figure 3.7-3 showing a joint "designed with single points of contact is shown below":-



Reference should be made to the original complete document ANSI/TPI 1-2002

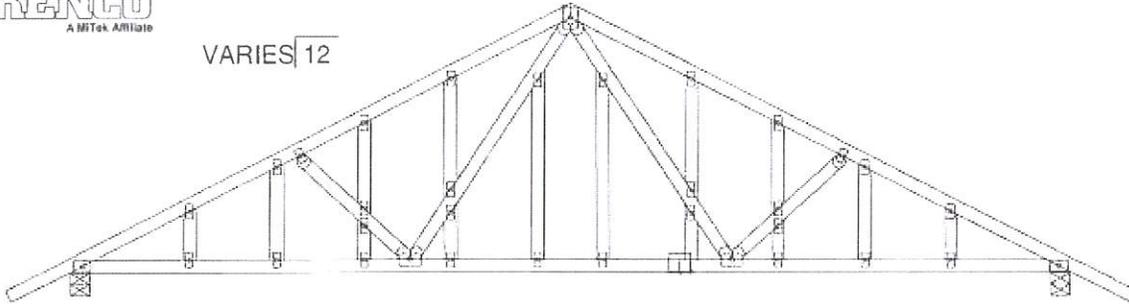


MiTek USA, Inc.



**REFER TO ENGINEERED TRUSS DRAWING
FOR EACH INDIVIDUAL TRUSS.**

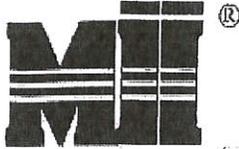
VARIES 12



**NOTE: GABLE STUDS MAY BE ATTACHED WITH 1.5X4 OR 2X3
MITEK MT20 PLATES OR WITH (6) -7/16"x1-3/4" STAPLES ONE SIDE ONLY**

**SEE MITEK STANDARD GABLE END DETAIL FOR
GABLE STUD BRACING REQUIREMENTS.**

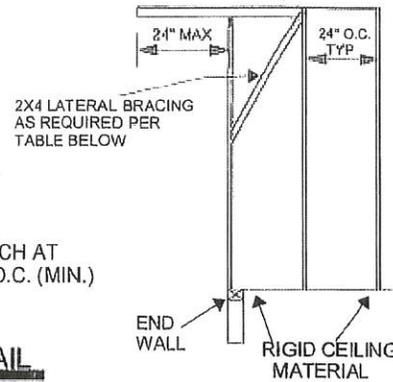
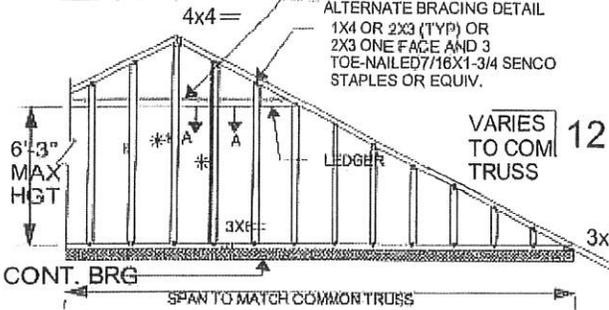




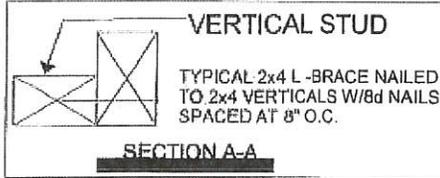
MiTek Industries, Inc.
Western Division

SHEATHING
(BY OTHERS)

*DIAGONAL OR L-BRACING
REFER TO TABLE BELOW
SEE PAGE 2/2 FOR
ALTERNATE BRACING DETAIL
1X4 OR 2X3 (TYP) OR
2X3 ONE FACE AND 3
TOE-NAILED 7/16X1-3/4 SENGCO
STAPLES OR EQUIV.



DETAIL A



VERT. HEIGHT	# OF NAILS AT END
UP TO 7'-0"	2 - 16d
7'-0" - 8'-6"	3 - 16d
OVER 8'-6"	4 - 16d

LOADING(psf)	SPACING	
TCLL 20.0	Plates Increase	2-0-0 1.25
TCDL 14.0	Lumber Increase	1.25
BCLL 0.0	Rep Stress Incr	YES
BCDL 10.0	Code	ASCE 7-02

LUMBER
 TOP CHORD 2 X 4 DFL/SPF/HF - No.2
 BOT CHORD 2 X 4 DFL/SPF/HF - STUD/STD
 OTHERS 2 X 4 DFL/SPF/HF - STUD/STD

SPACING OF VERTICALS	WITHOUT BRACE	WITH LATERAL BRACE	WITH L - BRACE
12 INCH O.C.	5-10-0	11-8-0	8-10-0
16 INCH O.C.	5-0-0	10-0-0	7-8-0
24 INCH O.C.	4-1-0	8-2-0	6-4-0



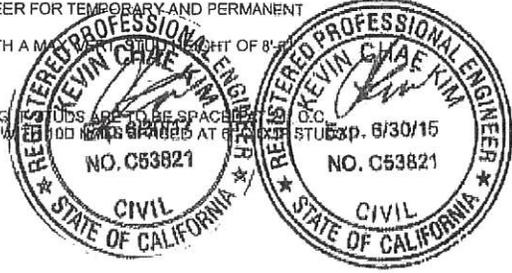
NOTES

- 1) VERT. STUDS HAVE BEEN CHECKED FOR 110 MPH WIND EXP. B, HEIGHT 30 FT
- 2) CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
- 3) FURNISH COPY OF THIS DRAWING TO CONTRACTOR FOR BRACING INSTALLATION.
- 4) BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
- 5) DETAIL A (SHOWN ABOVE) APPLIES TO STRUCTURAL GABLE ENDS AND TO GABLE ENDS WITH A MAXIMUM STUD HEIGHT OF 8'-0"

TOP CHORD NOTCHING NOTES

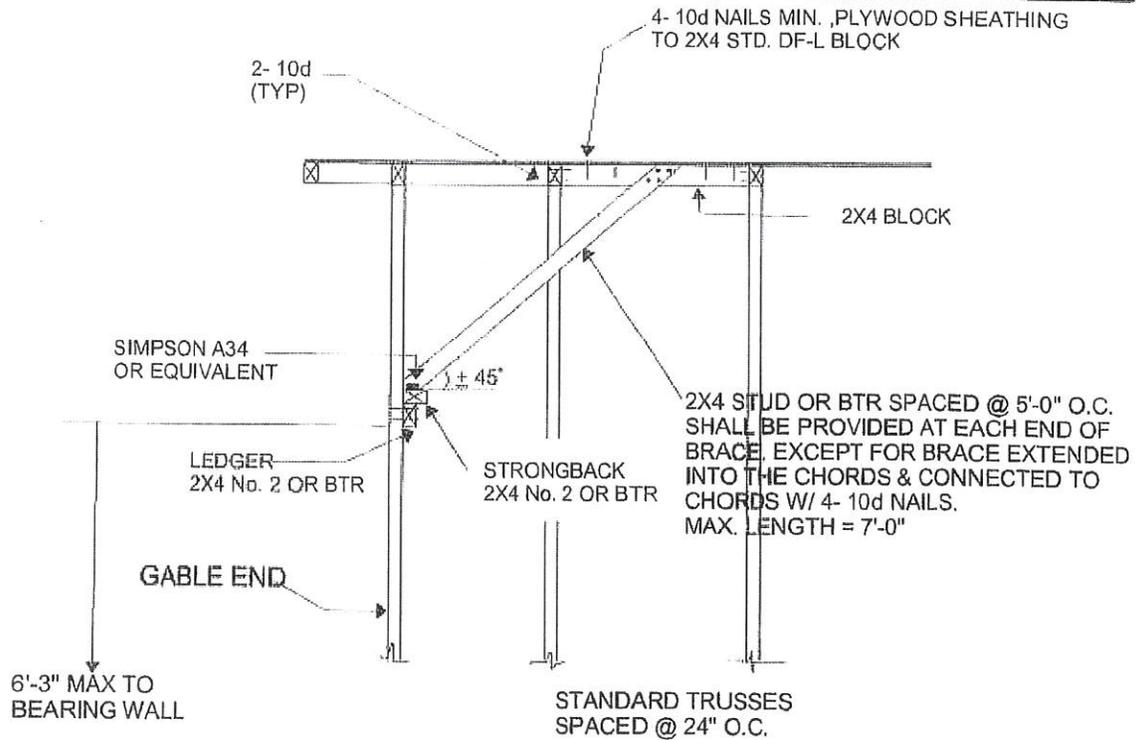
- 1) THE GABLE MUST BE FULLY SHEATHED WITH RIGID MATERIAL ON ONE FACE BEFORE NOTCHING. STUDS ARE TO BE SPACED AT 24" O.C. AND FACE OF TRUSS IS NOT FULLY SHEATHED.
- 2) NO LUMBER DEFECTS ALLOWED AT OR ABOUT NOTCHES.
- 3) LUMBER MUST MEET OR EXCEED VISUAL GRADE #2 LUMBER AFTER NOTCHING.
- 4) NO NOTCHING IS PERMITTED WITHIN 2X THE OVERHANG LENGTH.

Continued on page 2



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-7473 BEFORE USE. Design valid for use only with MiTek connections. This design is based only upon parameters shown, and is for an individual building component. Applicability of design parameters and proper incorporation of environment is responsibility of building designer. No liability assumed for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the installer. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANS/MITTEK Quality Criteria, D38-B9 and DCS11 Building Component Safety Information available from Truss Plate Institute, 3021 Oneida Drive, Houston, TX 77057.

1777 Greenhark Lane
 Suite 109
 Citrus Heights, CA, 95810
MiTek



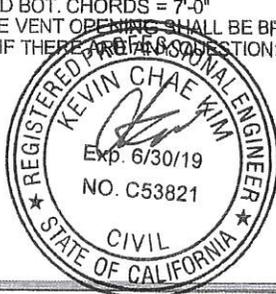
ALTERNATE BRACING DETAIL

NOTES

- 1) 2X4 NO.2 OR BTR. FOR LEDGER AND STRONGBACK NAILED TOGETHER WITH 10D NAILS @ 6" O.C.
- 2) 2X4 LEDGER NAILED TO EACH STUD WITH 4- 10d NAILS .
- 3) 2X4 STRONGBACK TO BE CONNECTED TO EACH VERT. STUD WITH 2- 10d TOE NAILS
- 4) THE 10d NAILS SPECIFIED FOR LEDGER AND STRONGBACK ARE 10d BOX NAILS (0.131" DIA. X 3.0" LGT)

THIS ALTERNATE BRACING DETAIL IS APPLICABLE TO STRUCTURAL GABLE END IF THE FOLLOWING CONDITIONS ARE MET:

1. MAXIMUM HEIGHT OF TRUSS = 8'-6", UNLESS OTHERWISE SPECIFIED BY PROJECT ENG. OR QUALIFIED BUILDING DESIGNER.
2. MAXIMUM PANEL LENGTH ON TOP AND BOT. CHORDS = 7'-0"
3. THE HORIZONTAL TIE MEMBER AT THE VENT OPENING SHALL BE BRACED
4. PLEASE CONTACT TRUSS ENGINEER IF THERE ARE ANY QUESTIONS.



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 BEFORE USE.
 Design valid for use only with Mitek connectors. This design is based only upon parameters shown, and is for an individual building component. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI1 Quality Criteria, D58-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 583 D'Oncofre Drive, Madison, WI 53719.

7777 Greenback Lane
 Suite 109
 Citrus Heights, CA. 95610

DETAIL FOR COMMON AND END JACKS

MII/SAC - 8 -20PSF

8/31/2005

PAGE 1



MAX LOADING (psf)	SPACING	2-0-0
TCLL 20.0	Plates Increase	1.15
TCDL 16.0	Lumber Increase	1.15
BCLL 0.0	Rep Stress Invr	YES
BCDL 10.0		
MINIMUM LUMBER SIZE AND GRADE		
TOP CHORD	2 X 4 HF, DF-L No.1	
BOT CHORD	2 X 4 SPF, HF, DF-L No.2	

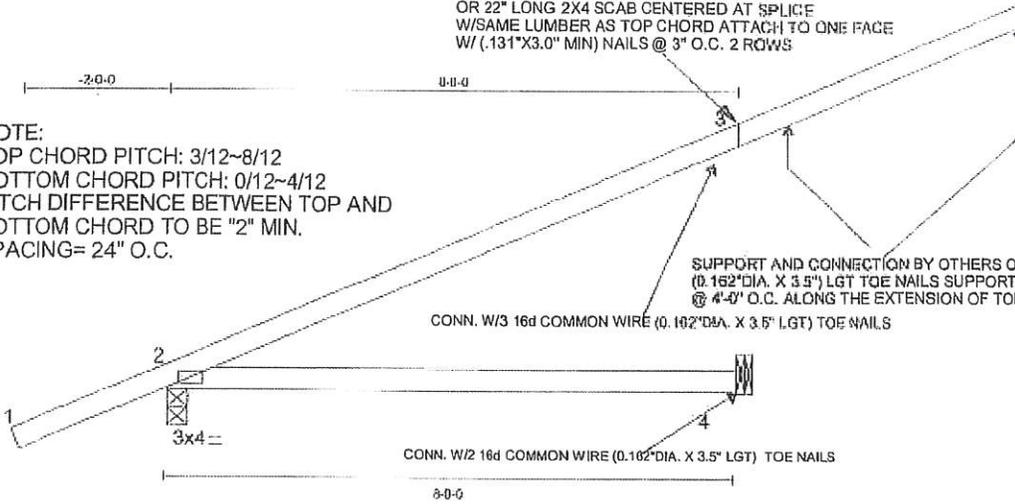
BRACING
TOP CHORD Sheathed.
BOT CHORD Rigid ceiling directly applied.

MITek Industries, Inc.
Western Division

LENGTH OF EXTENSION
AS DESIGN REQ'D 20'-0" MAX

SPLICE CAN EITHER BE 3X6 MT20 PLATES
OR 22" LONG 2X4 SCAB CENTERED AT SPLICE
W/SAME LUMBER AS TOP CHORD ATTACH TO ONE FACE
W/ (.131"X3.0" MIN) NAILS @ 3" O.C. 2 ROWS

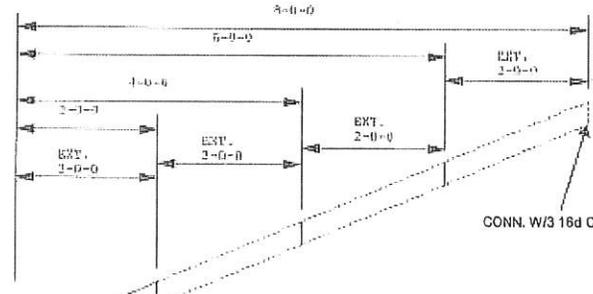
NOTE:
TOP CHORD PITCH: 3/12~8/12
BOTTOM CHORD PITCH: 0/12~4/12
PITCH DIFFERENCE BETWEEN TOP AND
BOTTOM CHORD TO BE "2" MIN.
SPACING= 24" O.C.



SUPPORT AND CONNECTION BY OTHERS OR 2-16d COMMON WIRE
(0.162" DIA. X 3.5" LGT) TOE NAILS SUPPORTS SHALL BE PROVIDED
@ 4'-0" O.C. ALONG THE EXTENSION OF TOP CHORD.

CONN. W/3 16d COMMON WIRE (0.162" DIA. X 3.5" LGT) TOE NAILS

CONN. W/2 16d COMMON WIRE (0.162" DIA. X 3.5" LGT) TOE NAILS

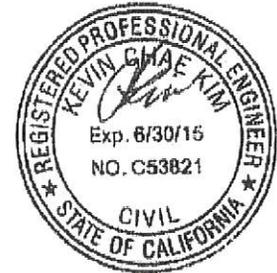


CONN. W/3 16d COMMON WIRE (0.162" DIA. X 3.5" LGT) TOE NAILS

BOTTOM CHORD LENGTH MAY BE 2'-0"
OR A BEARING BLOCK.

CONN. W/2 16d COMMON WIRE (0.162" DIA. X 3.5" LGT)
TOE NAILS OR SEE DETAIL MII/SAC-7 FOR
PRESSUREBLOCKING INFO.

NOTE: NAILING SHALL BE SUCH THAT THE LUMBER DOES NOT



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 BEFORE USE.
Design valid for use only with MITek connectors. This design is based only upon parameters shown, and is for an individual building component.
Applicability of design parameters and proper incorporation of component is responsibility of building designer - not Truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI1 Quality Criteria, DSB-89 and BC511 Building Component Safety Information available from Truss Plate Institute, 583 O'Neil Drive, Madison, WI 53719.

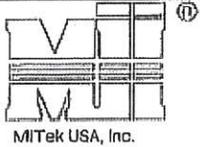
7777 Greenback Lane
Suite 100
Citrus Heights, CA, 95610



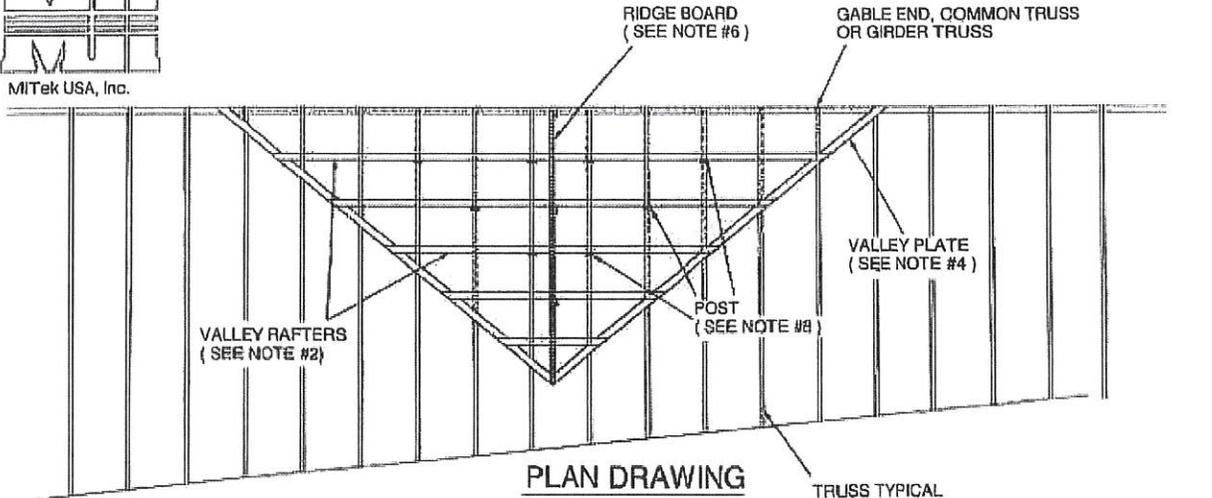
FEBRUARY 14, 2012

CONVENTIONAL VALLEY FRAMING DETAIL

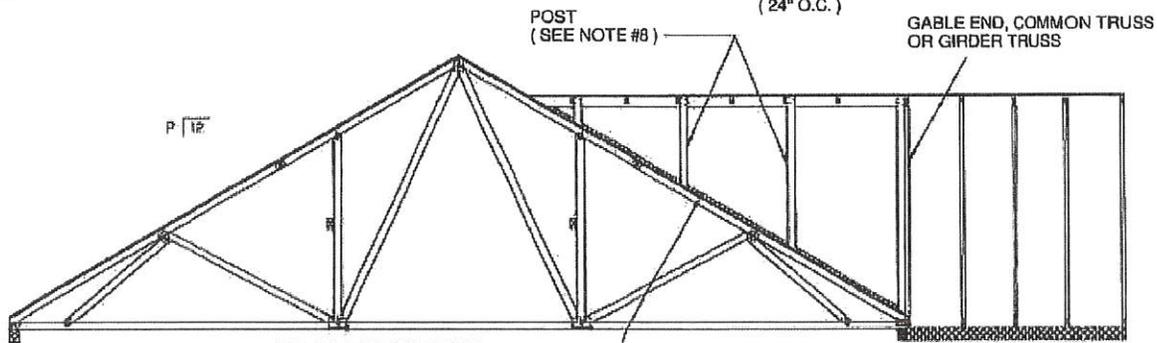
ST-VALLEY1



MITek USA, Inc.



PLAN DRAWING



PLAN SECTION

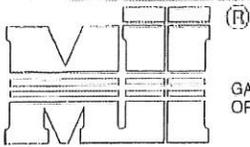
GENERAL SPECIFICATIONS

1. WITH BASE TRUSSES ERECTED (INSTALLED), APPLY SHEATHING TO TOP CHORD OF SUPPORTING (BASE) TRUSSES.
2. BRACE BOTTOM CHORD AND WEB MEMBERS PER TRUSS DESIGNS.
3. DEFINE VALLEY RIDGE BY RUNNING A LEVEL STRING FROM THE INTERSECTING RIDGE OF THE (a.) GABLE END, (b.) GIRDER TRUSS OR (c.) COMMON TRUSS TO THE ROOF SHEATHING.
4. INSTALL 2 x 4 VALLEY PLATES. FASTEN TO EACH SUPPORTING TRUSS WITH (2) 16d (3.5" X .131") NAILS.
5. SET 2 x 6 #2 RIDGE BOARD. SUPPORT WITH 2 x 4 POSTS SPACED 48" O.C.. BEVEL BOTTOM OF POST TO SET EVENLY ON THE SHEATHING. FASTEN POST TO RIDGE WITH (4) 10d (3" X .131") NAILS. FASTEN POST TO ROOF SHEATHING WITH (3) 10d (3" X .131") TOE-NAILS.
6. FRAME VALLEY RAFTERS FROM VALLEY PLATE TO RIDGE BOARD. MAXIMUM RAFTER SPACING IS 24" O.C.. FASTEN VALLEY RAFTER TO RIDGE BEAM WITH (3) 16d (3.5" X .131") TOE-NAILS. FASTEN VALLEY RAFTER TO VALLEY PLATE WITH (3) 16d (3.5" X .131") TOE-NAILS.
7. SUPPORT THE VALLEY RAFTERS WITH 2 x 4 POSTS 48" O.C (OR LESS) ALONG EACH RAFTER. INSTALL POSTS IN A STAGGERED PATTERN AS SHOWN ON PLAN DRAWING. ALIGN POSTS WITH TRUSSES BELOW. FASTEN VALLEY RAFTER TO POST WITH (4) 10d (3" X .131") NAILS. FASTEN POST THROUGH SHEATHING TO SUPPORTING TRUSS WITH (2) 16d (3.5" X .131") NAILS.
8. POSTS SHALL BE 2 x 4 #2 OR BETTER SPRUCE PINE FIR, DOUG FIR LARCH OR SOUTHERN YELLOW PINE. POSTS EXCEEDING 75' SHALL BE INCREASED TO 4 x 4 OR BE PRE-ASSEMBLED (2) PLY 2 x 4'S FASTENED TOGETHER WITH 2 ROWS OF 10d NAILS 6" O.C..

NOTE:
48" O.C. MAXIMUM POST SPACING

LIVE LOAD = 30 PSF (MAX)
DEAD LOAD = 15 PSF (MAX)
D.O.L. INC = 1.15
ASCE 7-98, ASCE 7-02, ASCE 7-05 90 MPH (MWFRS)
ASCE7-10 115 MPH (MWFRS)



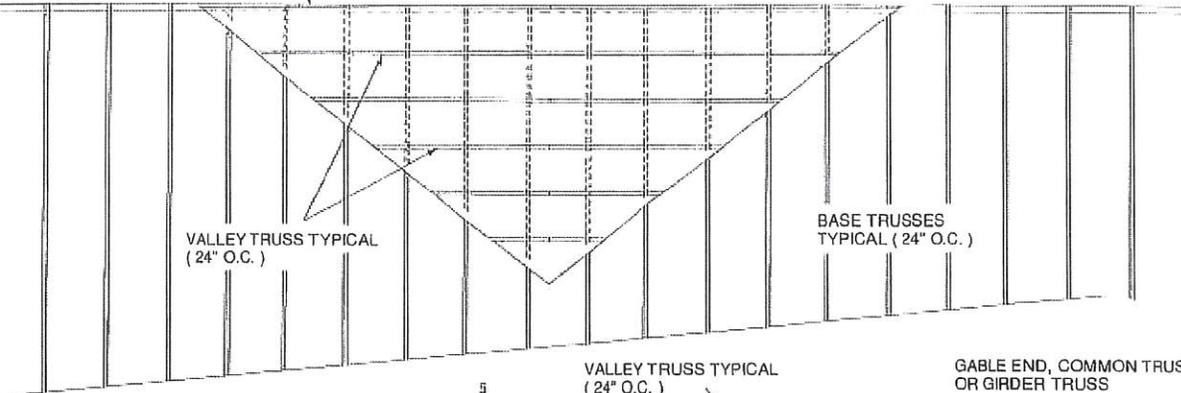


MiTek USA, Inc.

GABLE END, COMMON TRUSS OR GIRDER TRUSS

LIVE LOAD = 30 PSF (MAX)
DEAD LOAD = 15 PSF (MAX)
D.O.L. INC = 1.15
ASCE 7-98, ASCE 7-02, ASCE 7-05 (MWFRS) 100 MPH
ASCE 7-10 (MWFRS) 125 MPH

NOTE: VALLEY STUD SPACING NOT TO EXCEED 48" O.C. SPACING



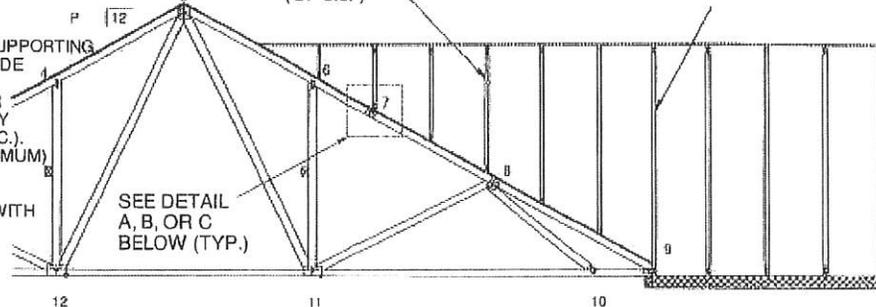
VALLEY TRUSS TYPICAL (24" O.C.)

BASE TRUSSES TYPICAL (24" O.C.)

VALLEY TRUSS TYPICAL (24" O.C.)

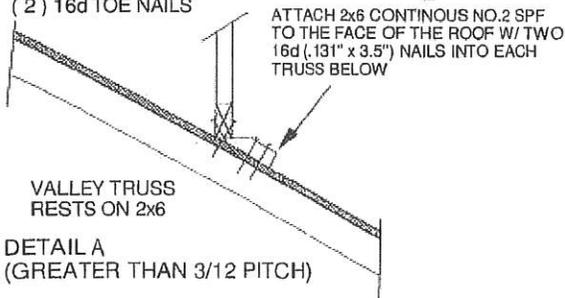
GABLE END, COMMON TRUSS OR GIRDER TRUSS

1. INSTALL BASE TRUSSES.
2. APPLY SHEATHING TO TOP CHORD OF SUPPORTING TRUSSES. VALLEY TRUSSES MAY PROVIDE BRACING IF SHEATHING IS NOT APPLIED. BASE TRUSSES MUST BE DESIGNED FOR PURLIN SPACING EQUIVALENT TO VALLEY TRUSS SPACING (NOT TO EXCEED 24" O.C.).
3. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND SECURE TO BASE TRUSSES AS PER DETAIL A, B, OR C BELOW.
4. BRACE VALLEY WEBS IN ACCORDANCE WITH THE INDIVIDUAL DESIGN DRAWINGS.

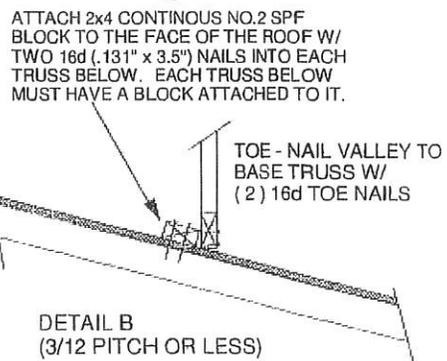


SEE DETAIL A, B, OR C BELOW (TYP.)

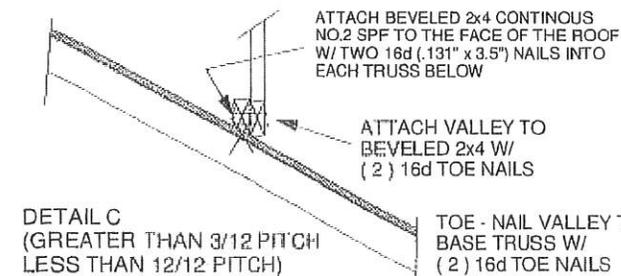
TOE - NAIL VALLEY TO BASE TRUSS W/ (2) 16d TOE NAILS



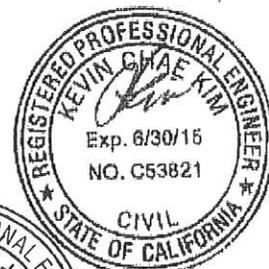
DETAIL A (GREATER THAN 3/12 PITCH)

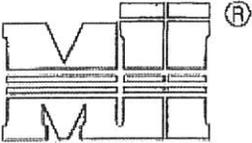


DETAIL B (3/12 PITCH OR LESS)



DETAIL C (GREATER THAN 3/12 PITCH LESS THAN 12/12 PITCH)



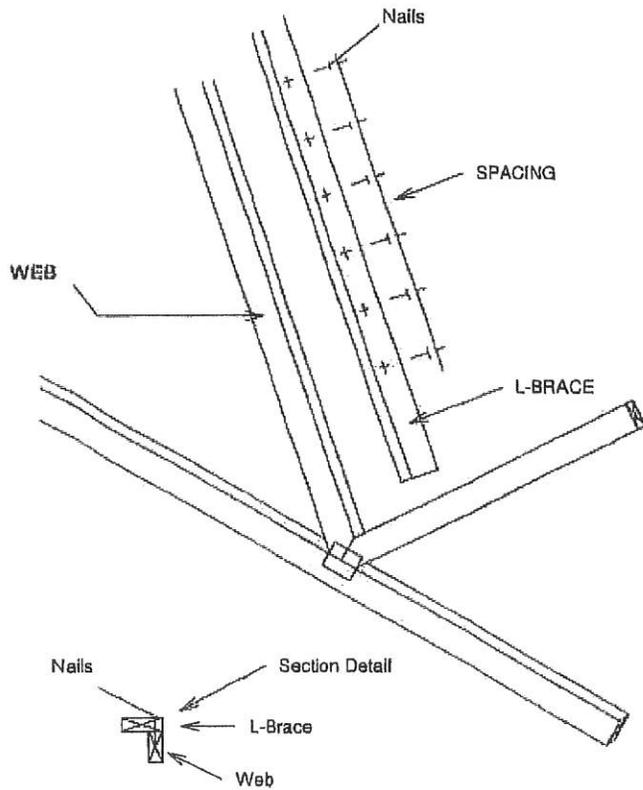


MITek USA, Inc.

Nailing Pattern		
L-Brace size	Nail Size	Nail Spacing
1x4 or 6	10d	8" o.c.
2x4, 6, or 8	16d	8" o.c.

Note: Nail along entire length of L-Brace
(On Two-Ply's Nail to Both Piles)

Note: L-Bracing to be used when continuous lateral bracing is impractical. L-brace must cover 90% of web length.



L-Brace must be same species grade (or better) as web member.

Web Size	L-Brace Size for One-Ply Truss	
	Specified Continuous Rows of Lateral Bracing	
	1	2
2x3 or 2x4	1x4	***
2x6	1x6	***
2x8	2x8	***

*** DIRECT SUBSTITUTION NOT APPLICABLE.

Web Size	L-Brace Size for Two-Ply Truss	
	Specified Continuous Rows of Lateral Bracing	
	1	2
2x3 or 2x4	2x4	***
2x6	2x6	***
2x8	2x8	***

*** DIRECT SUBSTITUTION NOT APPLICABLE.



08/01/2016

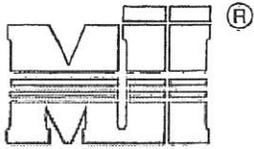


August 10, 2010

T-BRACE / I-BRACE DETAIL WITH 2X BRACE ONLY

ST - T-BRACE 2

MITek USA, Inc. Page 1 of 1



MITek USA, Inc.

Note: T-Bracing / I-Bracing to be used when continuous lateral bracing is impractical. T-Brace / I-Brace must cover 90% of web length.

Note: This detail NOT to be used to convert T-Brace / I-Brace webs to continuous lateral braced webs.

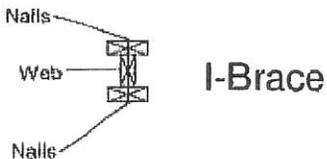
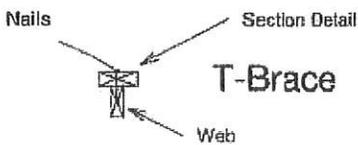
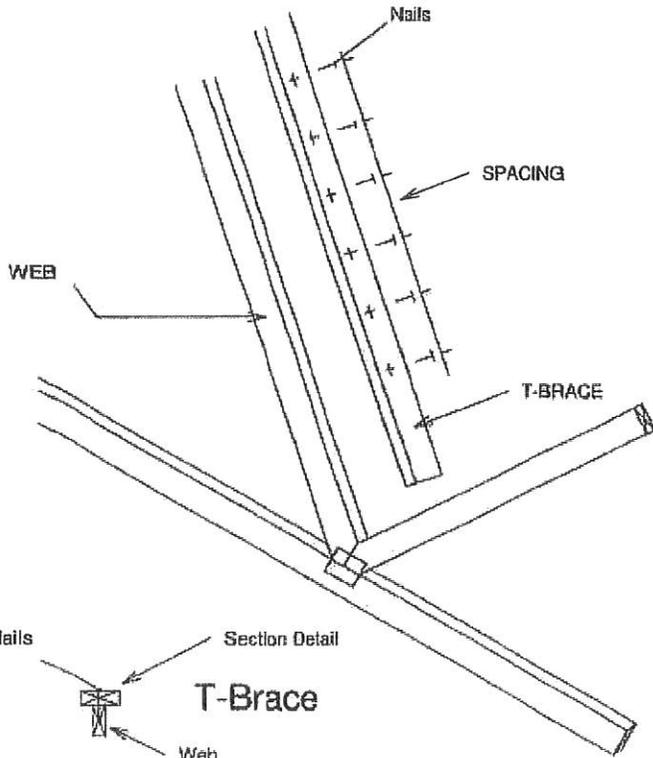
Nailing Pattern		
T-Brace size	Nail Size	Nail Spacing
2x4 or 2x6 or 2x8	10d	6" o.c.

Note: Nail along entire length of T-Brace / I-Brace
(On Two-Ply's Nail to Both Plies)

Web Size	Brace Size for One-Ply Truss	
	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

Web Size	Brace Size for Two-Ply Truss	
	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

T-Brace / I-Brace must be same species and grade (or better) as web member.

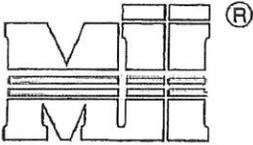


March 4, 2013

T-BRACE / I-BRACE DETAIL

ST - T-BRACE

MITek USA, Inc. Page 1 of 1



MITek USA, Inc.

Note: T-Bracing / I-Bracing to be used when continuous lateral bracing is impractical. T-Brace / I-Brace must cover 90% of web length.

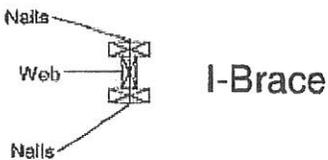
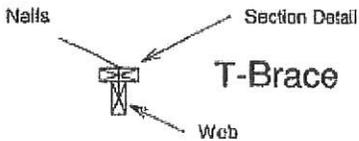
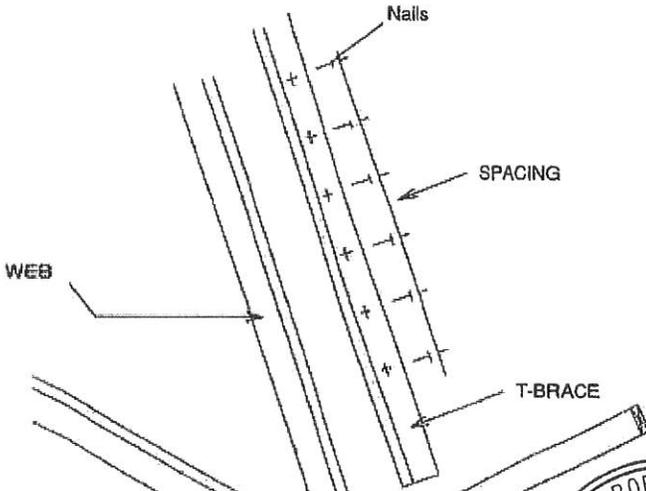
Note: This detail NOT to be used to convert T-Brace / I-Brace webs to continuous lateral braced webs.

Nailing Pattern		
T-Brace size	Nail Size	Nail Spacing
1x4 or 1x6	10d	8" o.c.
2x4 or 2x6 or 2x8	16d	8" o.c.

Note: Nail along entire length of T-Brace / I-Brace
(On Two-Ply's Nail to Both Plies)

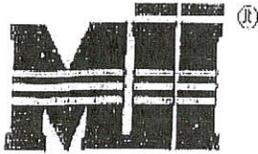
Brace Size for One-Ply Truss		
Specified Continuous Rows of Lateral Bracing		
Web Size	1	2
2x3 or 2x4	1x4 (*) T-Brace	1x4 (*) I-Brace
2x6	1x6 (*) T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

Brace Size for Two-Ply Truss		
Specified Continuous Rows of Lateral Bracing		
Web Size	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace



08/01/2016

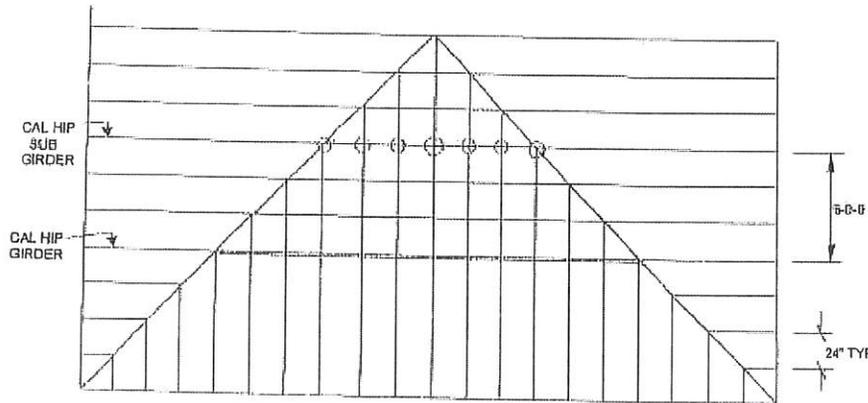
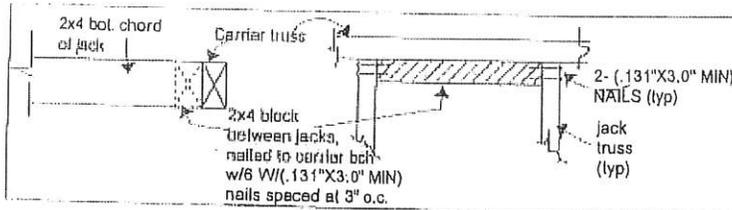
T-Brace / I-Brace must be same species and grade (or better) as web member.
 (*) NOTE: If SP webs are used in the truss, 1x4 or 1x6 SP braces must be stress rated boards with design values that are equal to (or better) the truss web design values.
 For SP truss lumber grades up to #2 with 1X_ bracing material, use IND 45 for T-Brace/I-Brace
 For SP truss lumber grades up to #1 with 1X_ bracing material, use IND 55 for T-Brace/I-Brace



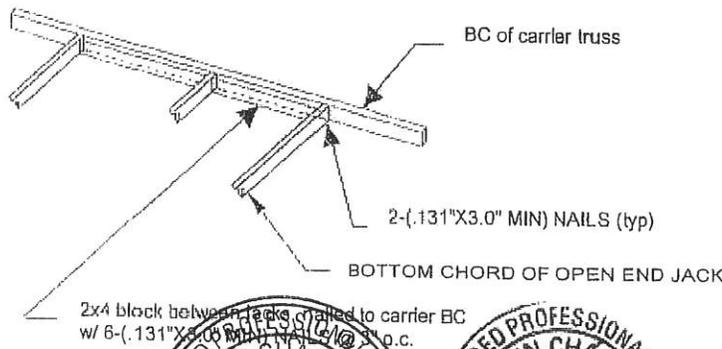
MITek Industries, Inc.
Western Division

Loading (PSF):

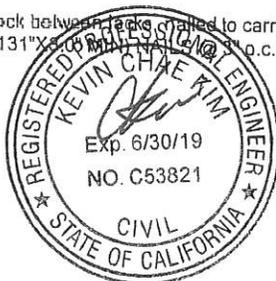
BCDL 10.0 PSF MAX



PARTIAL FRAMING PLAN OF CALIFORNIA HIP SET WITH SUB GIRDER



JUN 06 2007



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-7471 BEFORE USE. Design valid for use only with MITek connectors. This design is based only upon parameters shown, and is for an individual building component. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not MITek designer. Blocking shown is for lateral support of vertical web members only. Additional temporary bracing to insure stability during construction is the responsibility of the fabricator. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI-1 Quality Criteria, D50-01 and 40311 Building Component Safety Information available from Trus Steel Institute, 5911 D'Oroville Drive, Madison, WI 53719.

1777 Greenback Lane
Suite 109
Citrus Heights, CA 95616

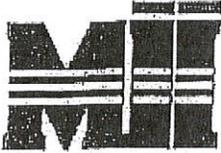


CORNER RAFTER 8'-0" SETBACK

MII/SAC - 9 -8SB 16-14-2

10/28/2004

PAGE 1



® MINIMUM GRADE OF LUMBER
 TOP CHORD: 2X4 NO.1 & BTR DF-L-GR
 BOT CHORD: 2X4 NO.1 & BTR DF-L-GR

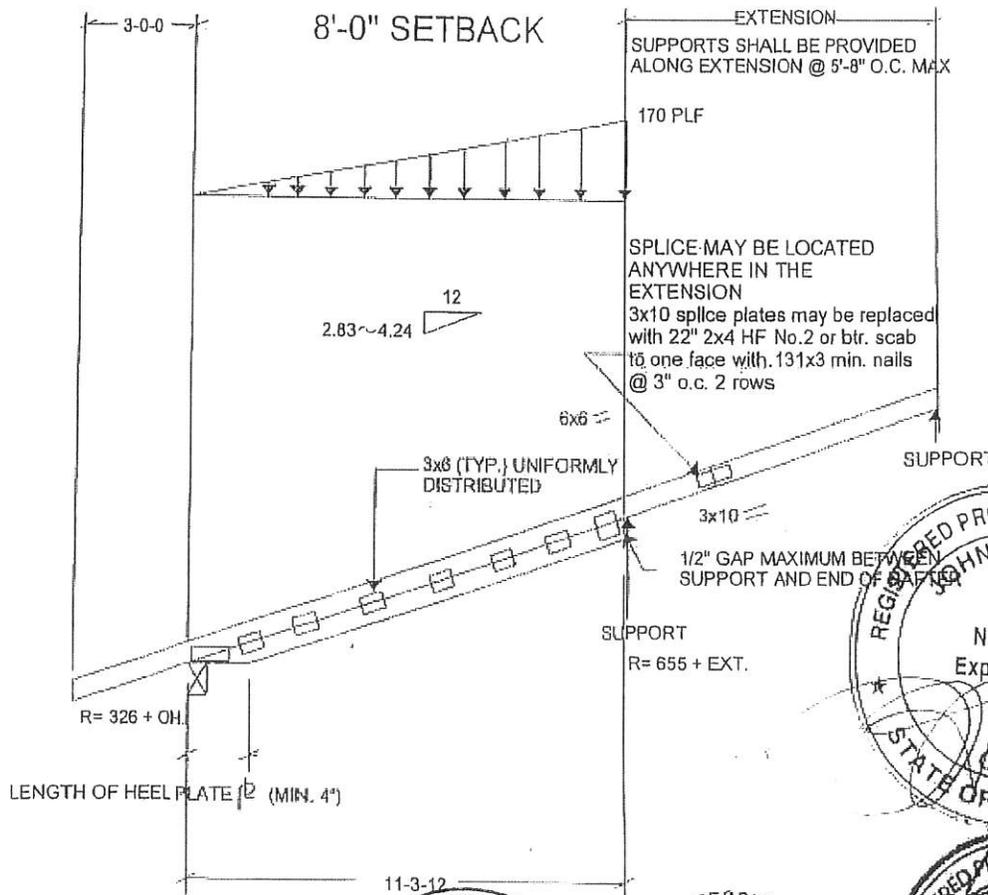
LOADING (PSF)
 L D
 TOP 16 14

MITek Industries, Inc.
 Western Division

STR. INC.: LUMB = 1.25 PLATE = 1.25
 REPETITIVE STRESSES NOT USED

SPACING : 24.0 IN. O.C.
 NO. OF MEMBERS = 1

NOTE: 1. ALL CONNECTIONS TO SUPPORTS BY OTHERS
 2. ALL PLATES ARE MITEK MT20



JUN 06 2007

WARNING: Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGES PRIOR TO USE.
 Design valid for use only with MiteK connectors. This design is based only upon parameters shown, and is for an individual building component.
 Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown
 is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the
 erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding
 fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/T11 Quality Criteria, D58-89 and SCS11 Building Component
 Safety Information available from Truss Plate Institute, 583 O'Onaha Drive, Madison, WI 53719.

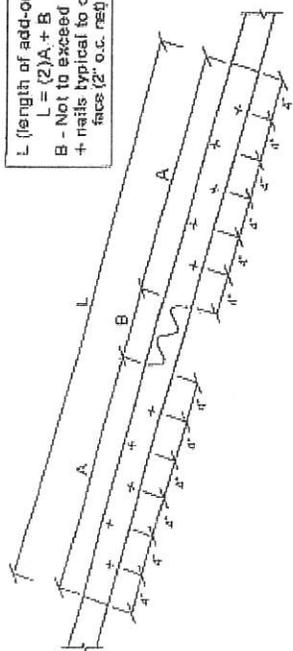
7777 Greenback Lane
 Suite 109
 Citrus Heights, CA, 95616

Load Duration Factors

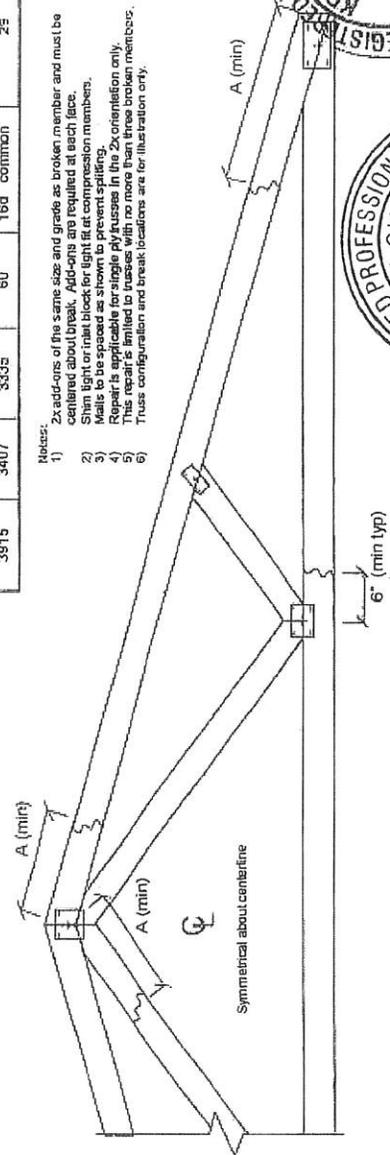
RTI California
Trustee
Building Components for a Greater Future

Maximum axial force (lbs). 25% load duration increase		SPF	A (inches) minimum	Nail size	Total number of nails required on each side of break
DF	HF				
1375	1155	1113	24	10d common	11
1305	1127	1113	24	16d box	11
1485	1292	1255	24	16d common	11
1750	1470	1417	30	10d common	14
1662	1435	1417	30	16d box	14
1690	1645	1610	30	16d common	14
2125	1765	1721	36	10d common	17
2018	1742	1721	36	16d box	17
2295	1987	1955	36	16d common	17
2500	2100	2025	42	10d common	20
2375	2050	2025	42	16d box	20
2760	2350	2300	42	16d common	22
2675	2415	2325	48	10d common	23
2751	2367	2320	48	16d box	23
3105	2702	2645	48	16d common	23
3250	2730	2632	54	10d common	26
3087	2655	2632	54	16d box	26
3510	3055	2990	54	16d common	25
3625	3045	2936	60	10d common	22
3443	2972	2866	60	16d box	28
3915	3407	3335	60	16d common	25

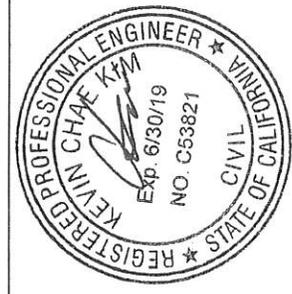
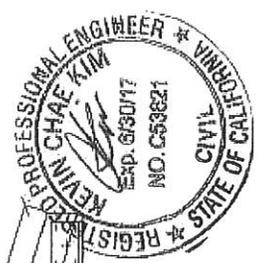
L (length of add-ons)
L = (2)A + B
B - Not to exceed 12"
+ nails typical to one
face (2" o.c. rest)

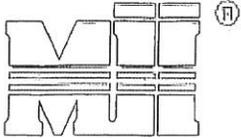


- Notes:
- 1) 2x add-ons of the same size and grade as broken member and must be attached to both break. Add-ons must be attached at each face.
 - 2) Shim light or shiplap for tight fit at connection.
 - 3) Nails to be spaced as shown to prevent splitting.
 - 4) Repair is applicable for single ply trusses in the 2x orientation only.
 - 5) This repair is limited to trusses with no more than three broken members.
 - 6) Truss configuration and break locations are for illustration only.



FILE NO:	Standard Repair (1.25)
DATE:	07/23/08
SEQ:	2787674
	IBC 2006 / CBC 2007



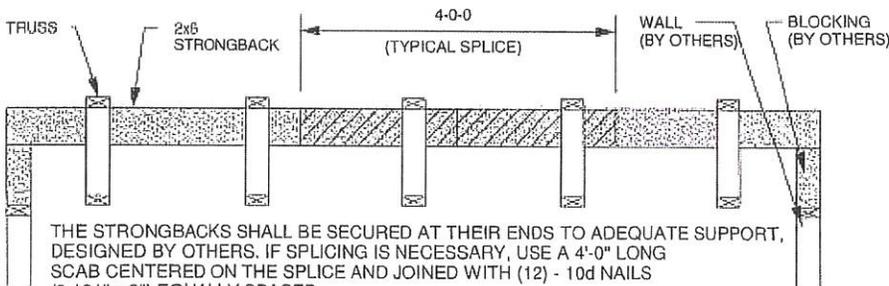
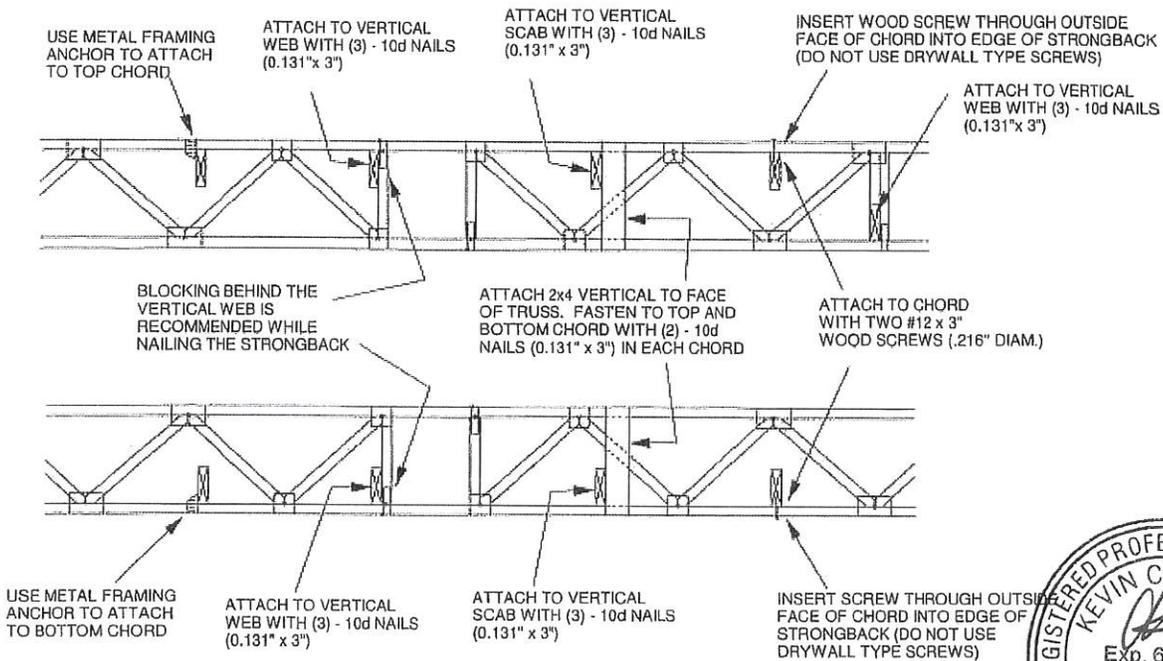


MiTek Industries, Inc.

TO MINIMIZE VIBRATION COMMON TO ALL SHALLOW FRAMING SYSTEMS, 2x6 "STRONGBACK" IS RECOMMENDED, LOCATED EVERY 8 TO 10 FEET ALONG A FLOOR TRUSS.

NOTE 1: 2X6 STRONGBACK ORIENTED VERTICALLY MAY BE POSITIONED DIRECTLY UNDER THE TOP CHORD OR DIRECTLY ABOVE THE BOTTOM CHORD. SECURELY FASTENED TO THE TRUSS USING ANY OF THE METHODS ILLUSTRATED BELOW.

NOTE 2: STRONGBACK BRACING ALSO SATISFIES THE LATERAL BRACING REQUIREMENTS FOR THE BOTTOM CHORD OF THE TRUSS WHEN IT IS PLACED ON TOP OF THE BOTTOM CHORD, IS CONTINUOUS FROM END TO END, CONNECTED WITH A METHOD OTHER THAN METAL FRAMING ANCHOR, AND PROPERLY CONNECTED, BY OTHERS, AT THE ENDS.



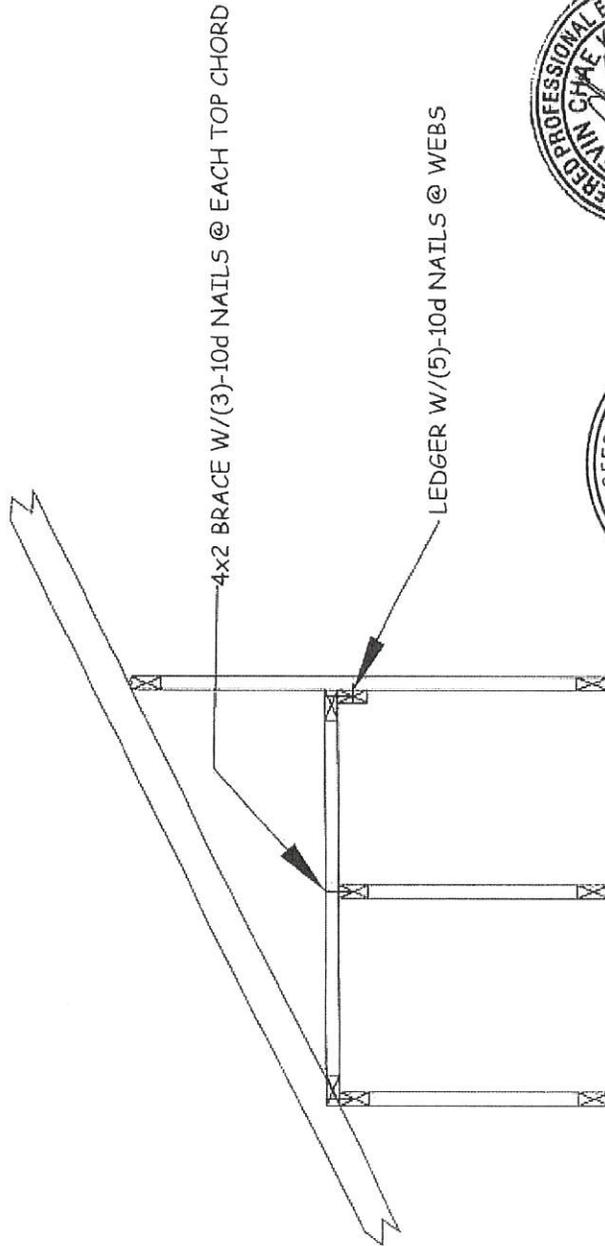
THE STRONGBACKS SHALL BE SECURED AT THEIR ENDS TO ADEQUATE SUPPORT, DESIGNED BY OTHERS. IF SPLICING IS NECESSARY, USE A 4'-0" LONG SCAB CENTERED ON THE SPLICE AND JOINED WITH (12) - 10d NAILS (0.131" x 3") EQUALLY SPACED.

ALTERNATE METHOD OF SPLICING:
OVERLAP STRONGBACK MEMBERS A MINIMUM OF 4'-0" AND FASTEN WITH (12) - 10d NAILS (0.131" x 3") STAGGERED AND EQUALLY SPACED.
(TO BE USED ONLY WHEN STRONGBACK IS NOT ALIGNED WITH A VERTICAL)



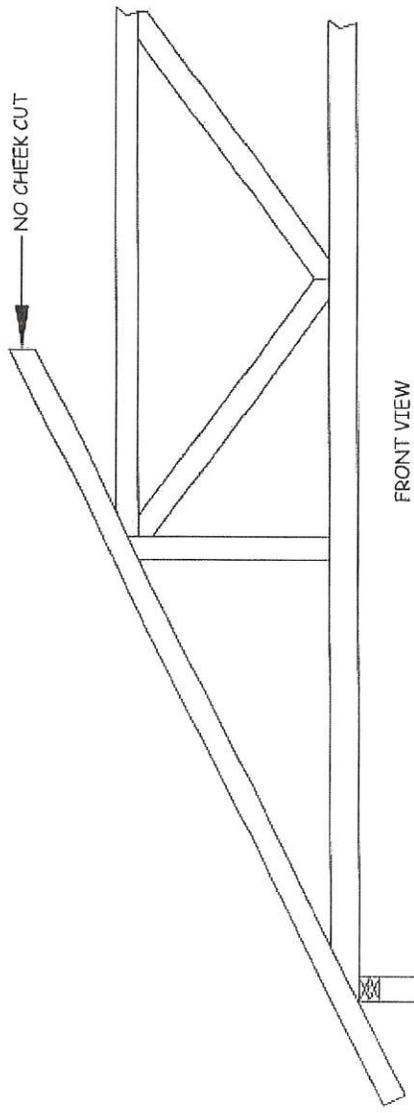
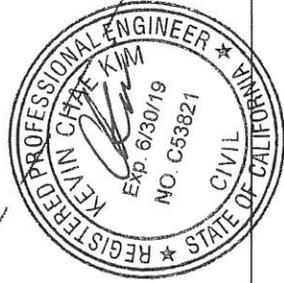
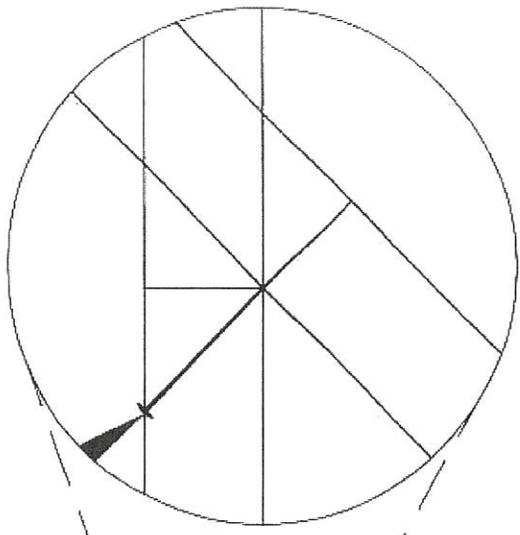


HIP FLAT TOP BRACING DETAIL

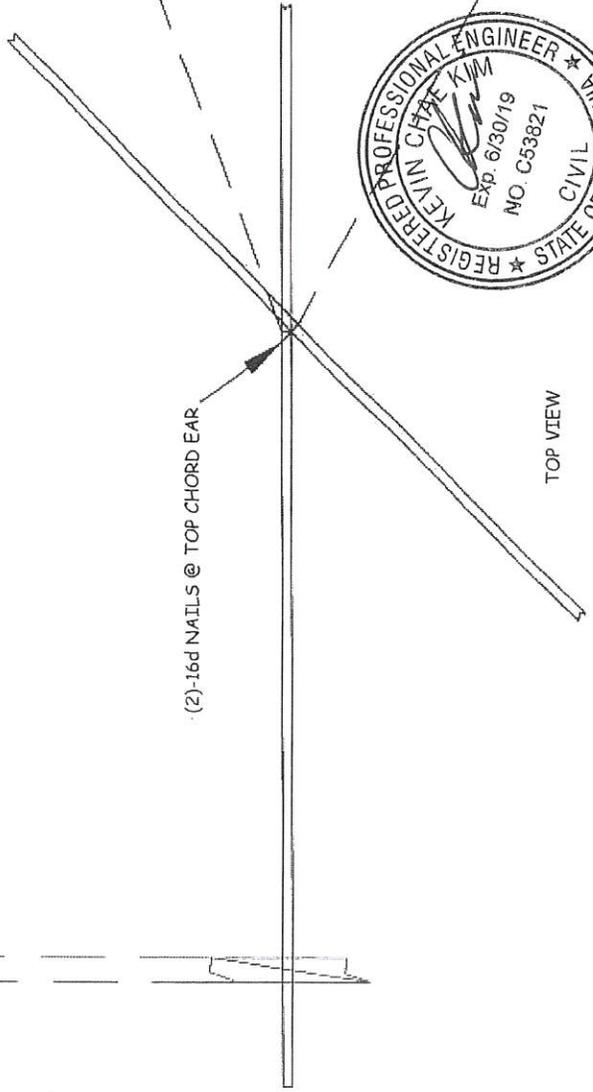




HIP EAR NAILING DETAIL



FRONT VIEW



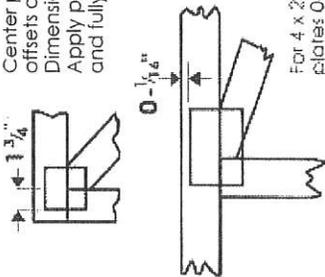
(2)-16d NAILS @ TOP CHORD EAR

TOP VIEW

Symbols

PLATE LOCATION AND ORIENTATION

Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0-¹/₄" from outside edge of truss.



This symbol indicates the required direction of slots in connector plates.

* Plate location details available in Mitek 20/20 software or upon request.

PLATE SIZE

4 X 4

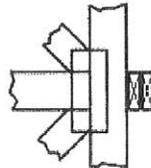
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING



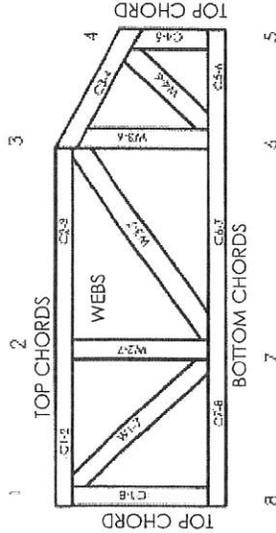
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

- ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.
- DSB-89: Design Standard for Bracing.
- BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



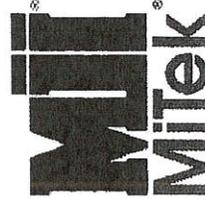
JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS
ICC-ES Reports:

ESR-1311, ESR-1352, ESR 1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

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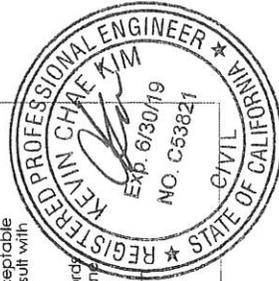


Mitek Engineering Reference Sheet: MIL-7473 rev. 02/16/2015

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
- Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative form bracing should be considered.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.
- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members to bear tightly against each other.
- Place plates on each face of truss at each joint and embed fully. Knots and warps at joint locations are regulated by ANSI/TPI 1.
- Design assumptions trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
- Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
- Member is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
- Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
- Connections not shown are the responsibility of others.
- Do not cut or alter truss member or plate without prior approval of an engineer.
- Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
- Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
- Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria

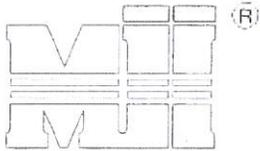


AUGUST 1, 2016

STANDARD PIGGYBACK TRUSS CONNECTION DETAIL

MII-PIGGY-7-10

MiTek USA, Inc. Page 1 of 1



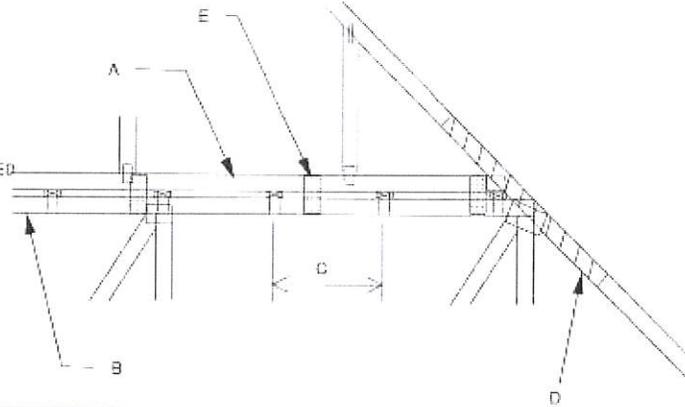
MiTek USA, Inc.



MAXIMUM WIND SPEED - REFER TO NOTES D AND OR E
 MAX MEAN ROOF HEIGHT = 30 FEET
 MAX TRUSS SPACING = 24' O.C.
 CATEGORY II BUILDING
 EXPOSURE B or C
 ASCE 7-10
 DURATION OF LOAD INCREASE = 1.60

DETAIL IS NOT APPLICABLE FOR TRUSSES
 TRANSFERRING DRAG LOADS (SHEAR TRUSSES).
 ADDITIONAL CONSIDERATIONS BY BUILDING
 ENGINEER/DESIGNER ARE REQUIRED.

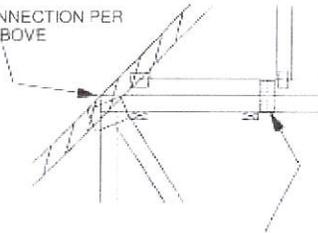
- A - PIGGYBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) (0.131" X 3.5") TOE-NAILED.
- B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24' O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. CONNECT TO BASE TRUSS WITH (2) (0.131" X 3.5") NAILS EACH.
- D - 2 x ____ x 4'-0" SCAB, SIZE TO MATCH TOP CHORD OF PIGGYBACK TRUSS, MIN GRADE #2, ATTACHED TO ONE FACE, CENTERED ON INTERSECTION, WITH (2) ROWS OF (0.131" X 3") NAILS @ 4" O.C. SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:
 1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR
 2. WIND SPEED OF 116 MPH TO 160 MPH WITH A MAXIMUM PIGGYBACK SPAN OF 12 ft.
- E - FOR WIND SPEEDS BETWEEN 126 AND 160 MPH, ATTACH MITEK 3X8 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 72" O.C. W/ (4) (0.131" X 1.5") NAILS PER MEMBER. STAGGER NAILS FROM OPPOSING FACES. ENSURE 0.5" EDGE DISTANCE. (MIN. 2 PAIRS OF PLATES REQ. REGARDLESS OF SPAN)



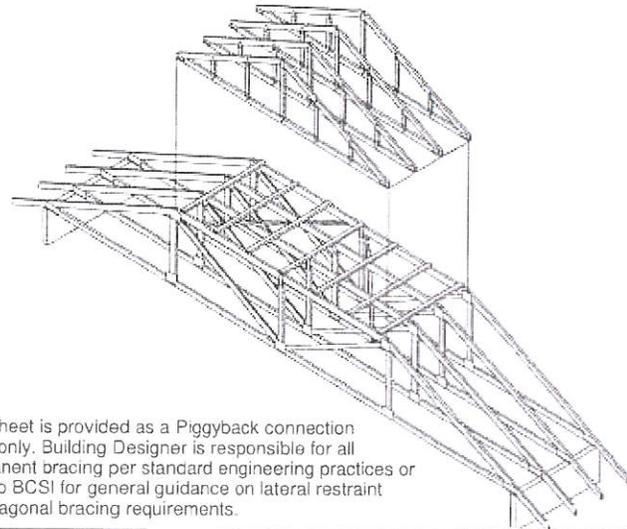
WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH Nail-On PLATES AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.

SCAB CONNECTION PER NOTE D ABOVE

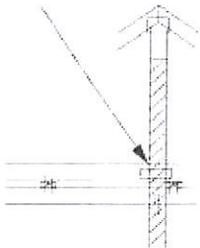


FOR ALL WIND SPEEDS, ATTACH MITEK 3X6 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 48" O.C. W/ (4) (0.131" X 1.5") PER MEMBER. STAGGER NAILS FROM OPPOSING FACES ENSURE 0.5" EDGE DISTANCE.



This sheet is provided as a Piggyback connection detail only. Building Designer is responsible for all permanent bracing per standard engineering practices or refer to BCSI for general guidance on lateral restraint and diagonal bracing requirements.

VERTICAL WEB TO EXTEND THROUGH BOTTOM CHORD OF PIGGYBACK



FOR LARGE CONCENTRATED LOADS APPLIED TO CAP TRUSS REQUIRING A VERTICAL WEB:

- 1) VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS MUST MATCH IN SIZE, GRADE, AND MUST LINE UP AS SHOWN IN DETAIL.
- 2) ATTACH 2 x ____ x 4'-0" SCAB TO EACH FACE OF TRUSS ASSEMBLY WITH 2 ROWS OF 10d (0.131" X 3") NAILS SPACED 4" O.C. FROM EACH FACE. (SIZE AND GRADE TO MATCH VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS.) (MINIMUM 2X4)
- 3) THIS CONNECTION IS ONLY VALID FOR A MAXIMUM CONCENTRATED LOAD OF 4000 LBS (@1.15). REVIEW BY A QUALIFIED ENGINEER IS REQUIRED FOR LOADS GREATER THAN 4000 LBS.
- 4) FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS, NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS.
- 5) CONCENTRATED LOAD MUST BE APPLIED TO BOTH THE PIGGYBACK AND THE BASE TRUSS DESIGN.

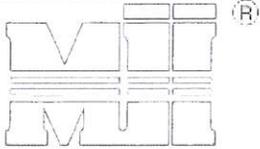


AUGUST 1, 2016

STANDARD PIGGYBACK TRUSS CONNECTION DETAIL

MII-PIGGY

MiTek USA, Inc. Page 1 of 1



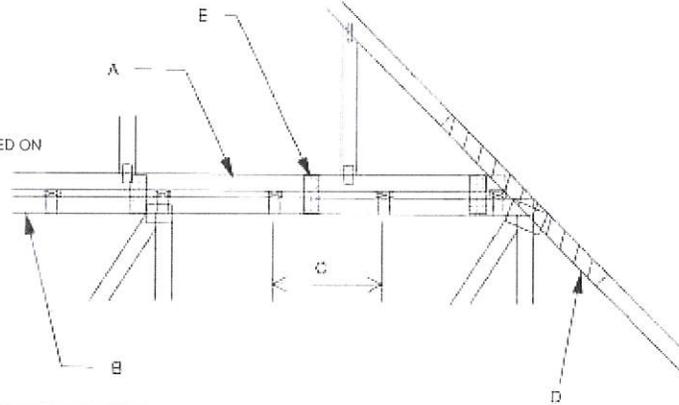
MiTek USA, Inc.



MAXIMUM WIND SPEED - REFER TO NOTES D AND OR E
 MAX MEAN ROOF HEIGHT = 30 FEET
 MAX TRUSS SPACING = 24' O.C.
 CATEGORY II BUILDING
 EXPOSURE B or C
 ASCE 7-02, ASCE 7-05
 DURATION OF LOAD INCREASE - 1.60

DETAIL IS NOT APPLICABLE FOR TRUSSES TRANSFERRING DRAG LOADS (SHEAR TRUSSES). ADDITIONAL CONSIDERATIONS BY BUILDING ENGINEER/DESIGNER ARE REQUIRED

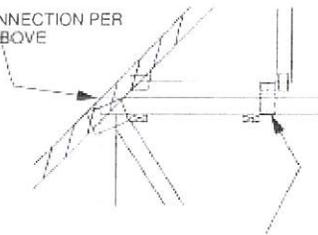
- A - PIGGYBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) (0.131" X 3.5") TOE-NAILED.
- B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. CONNECT TO BASE TRUSS WITH (2) (0.131" X 3.5") NAILS EACH.
- D - 2 X X 4'-0" SCAB, SIZE TO MATCH TOP CHORD OF PIGGYBACK TRUSS, MIN GRADE #2, ATTACHED TO ONE FACE, CENTERED ON INTERSECTION, WITH (2) ROWS OF (0.131" X 3") NAILS @ 4" O.C. SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:
 1. WIND SPEED OF 90 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR
 2. WIND SPEED OF 91 MPH TO 140 MPH WITH A MAXIMUM PIGGYBACK SPAN OF 12 ft.
- E - FOR WIND SPEEDS BETWEEN 101 AND 140 MPH, ATTACH MITEK 3X6 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 72" O.C. W/ (4) (0.131" X 1.5") NAILS PER MEMBER. STAGGER NAILS FROM OPPOSING FACES. ENSURE 0.5" EDGE DISTANCE. (MIN. 2 PAIRS OF PLATES REQ. REGARDLESS OF SPAN)



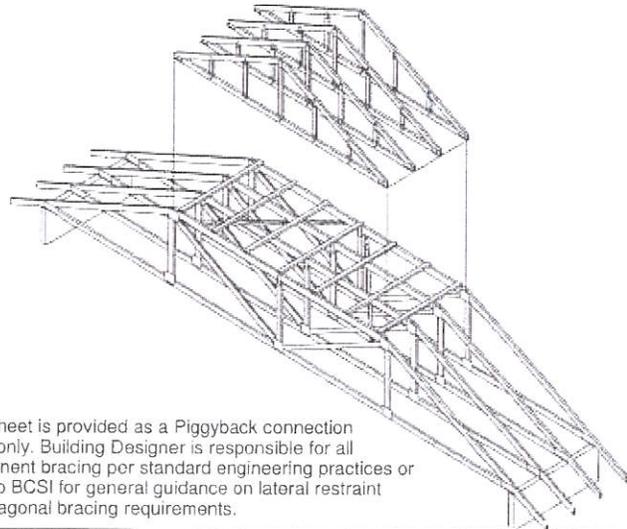
WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH Nail-On PLATES AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.

SCAB CONNECTION PER NOTE D ABOVE

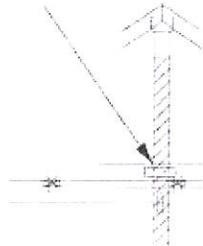


FOR ALL WIND SPEEDS, ATTACH MITEK 3X6 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 48" O.C. W/ (4) (0.131" X 1.5") PER MEMBER. STAGGER NAILS FROM OPPOSING FACES ENSURE 0.5" EDGE DISTANCE.



This sheet is provided as a Piggyback connection detail only. Building Designer is responsible for all permanent bracing per standard engineering practices or refer to BCSI for general guidance on lateral restraint and diagonal bracing requirements.

VERTICAL WEB TO EXTEND THROUGH BOTTOM CHORD OF PIGGYBACK



FOR LARGE CONCENTRATED LOADS APPLIED TO CAP TRUSS REQUIRING A VERTICAL WEB:

- 1) VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS MUST MATCH IN SIZE, GRADE, AND MUST LINE UP AS SHOWN IN DETAIL.
- 2) ATTACH 2 x x 4'-0" SCAB TO EACH FACE OF TRUSS ASSEMBLY WITH 2 ROWS OF 10d (0.131" X 3") NAILS SPACED 4" O.C. FROM EACH FACE. (SIZE AND GRADE TO MATCH VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS.) (MINIMUM 2X4)
- 3) THIS CONNECTION IS ONLY VALID FOR A MAXIMUM CONCENTRATED LOAD OF 4000 LBS (@1.15). REVIEW BY A QUALIFIED ENGINEER IS REQUIRED FOR LOADS GREATER THAN 4000 LBS.
- 4) FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS, NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS.
- 5) CONCENTRATED LOAD MUST BE APPLIED TO BOTH THE PIGGYBACK AND THE BASE TRUSS DESIGN.

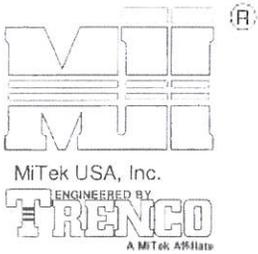


AUGUST 1, 2016

STANDARD CAP TRUSS CONNECTION DETAIL

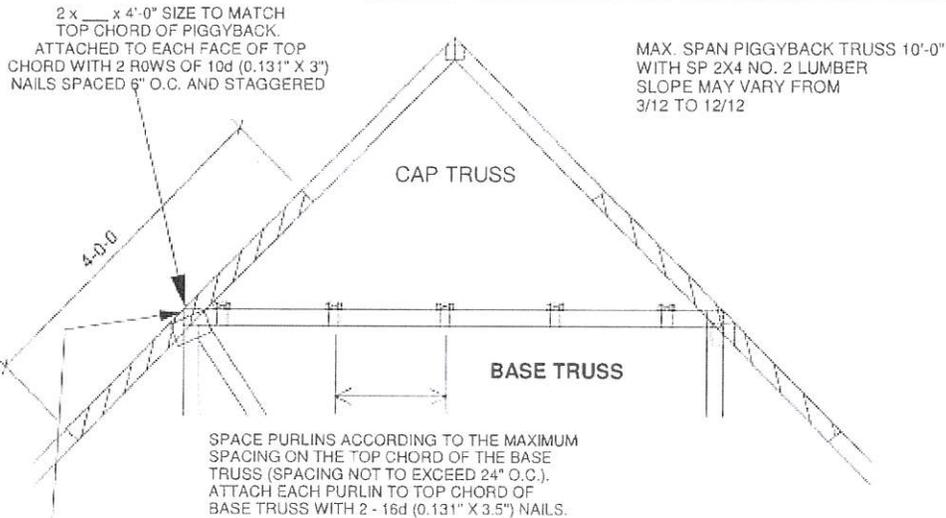
MII-CAP

MiTek USA, Inc. Page 1 of 1



DESIGN CRITERIA

LOADING (PSF)		MAX MEAN ROOF HEIGHT = 30 FEET
TCLL=	30.0	CATEGORY II BUILDING
TCDL=	10.0	EXPOSURE B or C
TOTAL=	40.0	ENCLOSED BUILDING
SPACING	2-0-0	ASCE 7-98, ASCE 7-02, ASCE 7-05 90 MPH
PLATE INCR:	1.15	ASCE 7-10 115 MPH
LUMBER INCR:	1.15	DURATION OF LOAD INCREASE : 1.60
MIN L/DEFL=	240	



FOR PIGGY BACK TRUSSES WITH SPANS 4' OR LESS SCAB MAY BE OMITTED PROVIDED THAT ROOF SHEATHING TO BE CONTINUOUS OVER JOINT (SHEATHING TO OVERLAP MINIMUM 12" OVER JOINT)

NOTE:
A PURLIN TO BE LOCATED AT EACH BASE TRUSS JOINT.

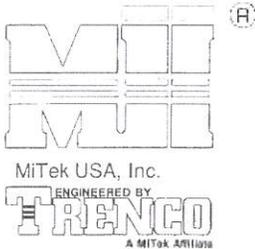


AUGUST 1, 2016

STANDARD PIGGYBACK TRUSS
CONNECTION DETAIL (PERPENDICULAR)

MII-PIGGY-PERP.

MiTek USA, Inc. Page 1 of 1



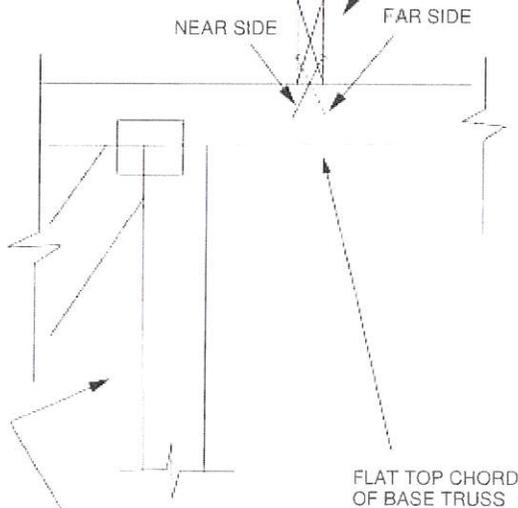
MAX MEAN ROOF HEIGHT = 30 FEET
BUILDING CATEGORY II
WIND EXPOSURE B or C
WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 100 MPH (MWFRS)
WIND DESIGN PER ASCE 7-10 125 MPH (MWFRS)
DURATION OF LOAD INCREASE
FOR WIND LOADS: 1.60

DETAIL IS NOT APPLICABLE FOR TRUSSES
TRANSFERING DRAG LOADS (SHEAR TRUSSES).
ADDITIONAL CONSIDERATIONS BY BUILDING
ENGINEER/DESIGNER ARE REQUIRED.

THIS DETAIL SHALL BE ONLY USED FOR RESISTING A VERTICAL WIND UPLIFT
UP TO 140 LBS MAXIMUM AT EACH CONNECTION POINT. BUILDING DESIGNER
IS RESPONSIBLE FOR THE LOAD EXCEEDING THIS LIMITATION AND/OR IN
OTHER DIRECTIONS.

PIGGY-BACK TRUSS
(CROSS-SECTION VIEW)
Refer to actual truss design drawing for
additional piggyback truss information.

ATTACH PIGGYBACK TRUSS
TO BASE TRUSS WITH
(2) - 16d (0.131" X 3.5") NAILS
TOENAILED.



BASE TRUSS (SIDE VIEW)
Refer to actual truss design drawing
for additional base truss information.

NOTES FOR TRUSS:

1. THIS DETAIL IS VALID FOR ONE-PLY PIGGYBACK TRUSS ONLY;
2. THE CHORD MEMBER OF PIGGYBACK AND BASE TRUSSES
MUST BE SOUTHERN PINE OR DOUGLAS FIR-LARCH LUMBER;
3. THE SPACING OF PIGGYBACK TRUSSES AND BASE TRUSSES
IS 2 FT OR LESS;
4. THE PIGGYBACK TRUSSES SHOULD BE PERPENDICULAR TO
BASE TRUSSES.
5. PIGGYBACK TRUSS MAY NOT CANTILEVER OVER BASE TRUSS
OR HAVE AN OVERHANG WHICH WILL CREATE A HIGHER UPLIFT
AT CONNECTING POINT.

NOTES FOR TOE-NAIL:

1. TOE-NAILS SHALL BE DRIVEN AT AN ANGLE OF 30 DEGREES
WITH THE MEMBER AND STARTED 1/3 THE LENGTH OF THE
NAIL FROM THE MEMBER END AS SHOWN.
2. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF
NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING
OF THE WOOD.

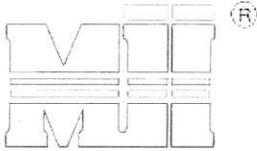


AUGUST 1, 2016

STANDARD PIGGYBACK TRUSS CONNECTION DETAIL

MII-PIGGY-ALT 7-10

MiTek USA, Inc. Page 1 of 1



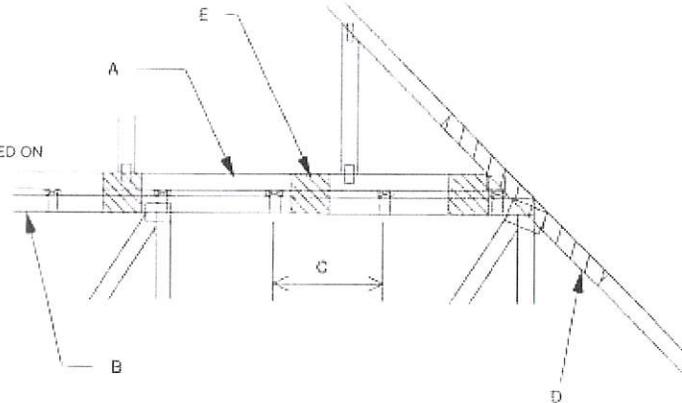
MiTek USA, Inc.



MAXIMUM WIND SPEED = REFER TO NOTES D AND OR E
 MAX MEAN ROOF HEIGHT = 30 FEET
 MAX TRUSS SPACING = 24" O.C.
 CATEGORY II BUILDING
 EXPOSURE B or C
 ASCE 7-10
 DURATION OF LOAD INCREASE : 1.60

DETAIL IS NOT APPLICABLE FOR TRUSSES TRANSFERRING DRAG LOADS (SHEAR TRUSSES). ADDITIONAL CONSIDERATIONS BY BUILDING ENGINEER/DESIGNER ARE REQUIRED.

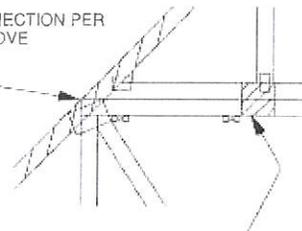
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 1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR
 2. WIND SPEED OF 116 MPH TO 160 MPH WITH A MAXIMUM PIGGYBACK SPAN OF 12 ft.
- E - FOR WIND SPEED IN THE RANGE 126 MPH - 160 MPH ADD 9" x 9" x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 48" O.C. OR LESS, ATTACH WITH 3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)



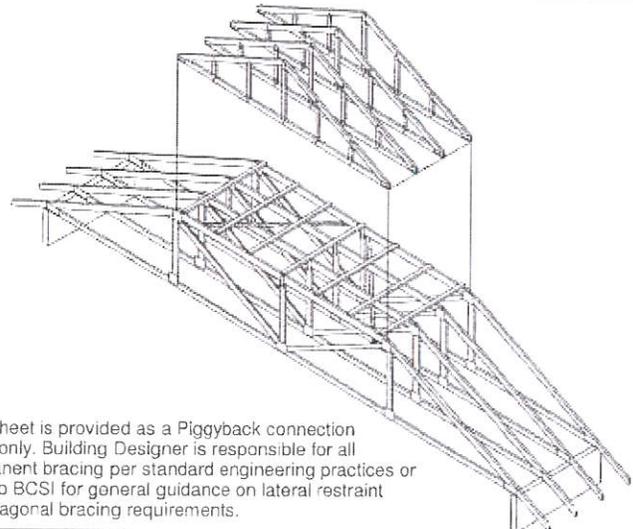
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SCAB CONNECTION PER NOTE D ABOVE

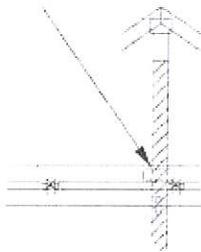


7" x 7" x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 24" O.C. ATTACH WITH 3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)



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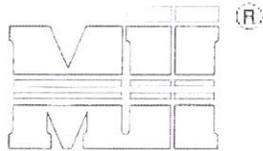
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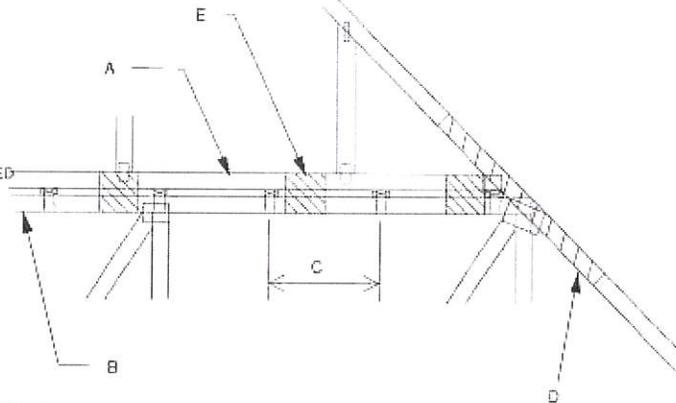
MiTek USA, Inc.



MAXIMUM WIND SPEED = REFER TO NOTES D AND OR E
 MAX MEAN ROOF HEIGHT = 30 FEET
 MAX TRUSS SPACING = 24' O.C.
 CATEGORY II BUILDING
 EXPOSURE B or C
 ASCE 7-02, ASCE 7-05
 DURATION OF LOAD INCREASE : 1.60

DETAIL IS NOT APPLICABLE FOR TRUSSES TRANSFERRING DRAG LOADS (SHEAR TRUSSES). ADDITIONAL CONSIDERATIONS BY BUILDING ENGINEER/DESIGNER ARE REQUIRED.

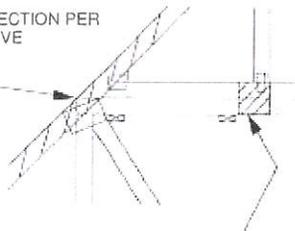
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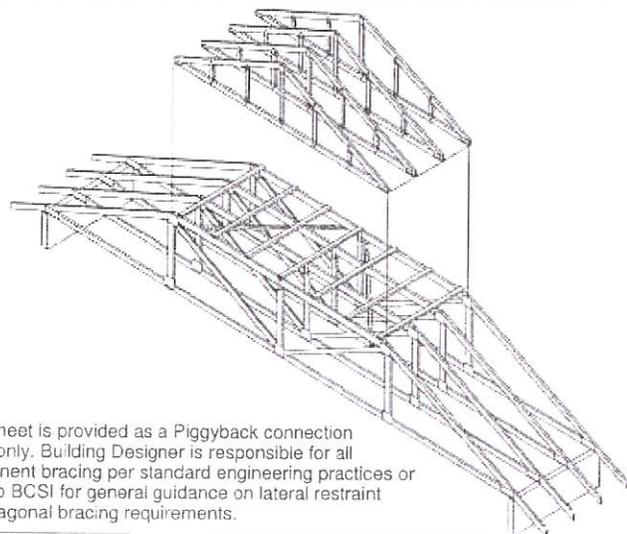
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SCAB CONNECTION PER NOTE D ABOVE

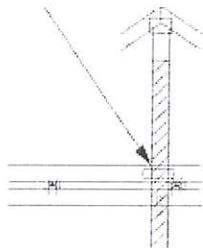


7" x 7" x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 24" O.C. AT EACH BASE TRUSS JOINT. ATTACH WITH 3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)



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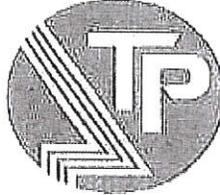
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- 5) CONCENTRATED LOAD MUST BE APPLIED TO BOTH THE PIGGYBACK AND THE BASE TRUSS DESIGN.





TIMBER PRODUCTS INSPECTION, INC.
dba
GENERAL TESTING AND INSPECTION AGENCY

105 SE 124th AVENUE
VANCOUVER, WA 98684

Timber Products Inspection (TP) and General Testing and Inspection (GTI) are code recognized by the International Conference of Building Officials (ICBO E.S.) which as of January 1, 2003 became the International Accreditation Service, Inc. (IAS) with the new assigned number of AA-664.

This is to verify that:

CALIFORNIA TRUSFRAME LLC
PERRIS CA

Is currently an active member in good standing in the
TP Third Party Truss Auditing Program
and has been since

MAY, 2011

Brian Hensley 
Truss Manager – Western Division
April 18, 2012



TIMBER PRODUCTS
We Deliver Confidence

July 25, 2017

California TrusFrame LLC
23665 Cajalco Road
Perris, CA 92370

To Whom It May Concern,

Timber Products Inspection, Inc. is proud to announce that the following truss manufacturing facility, California TrusFrame LLC, is a subscriber to our nationally accredited "Truss Quality Auditing Program".

The TP Truss Quality Auditing Program is accredited under the IAS AA696 Evaluation Report and conforms to requirements for independent inspection of trusses under the International Building Code and International Residential Code.

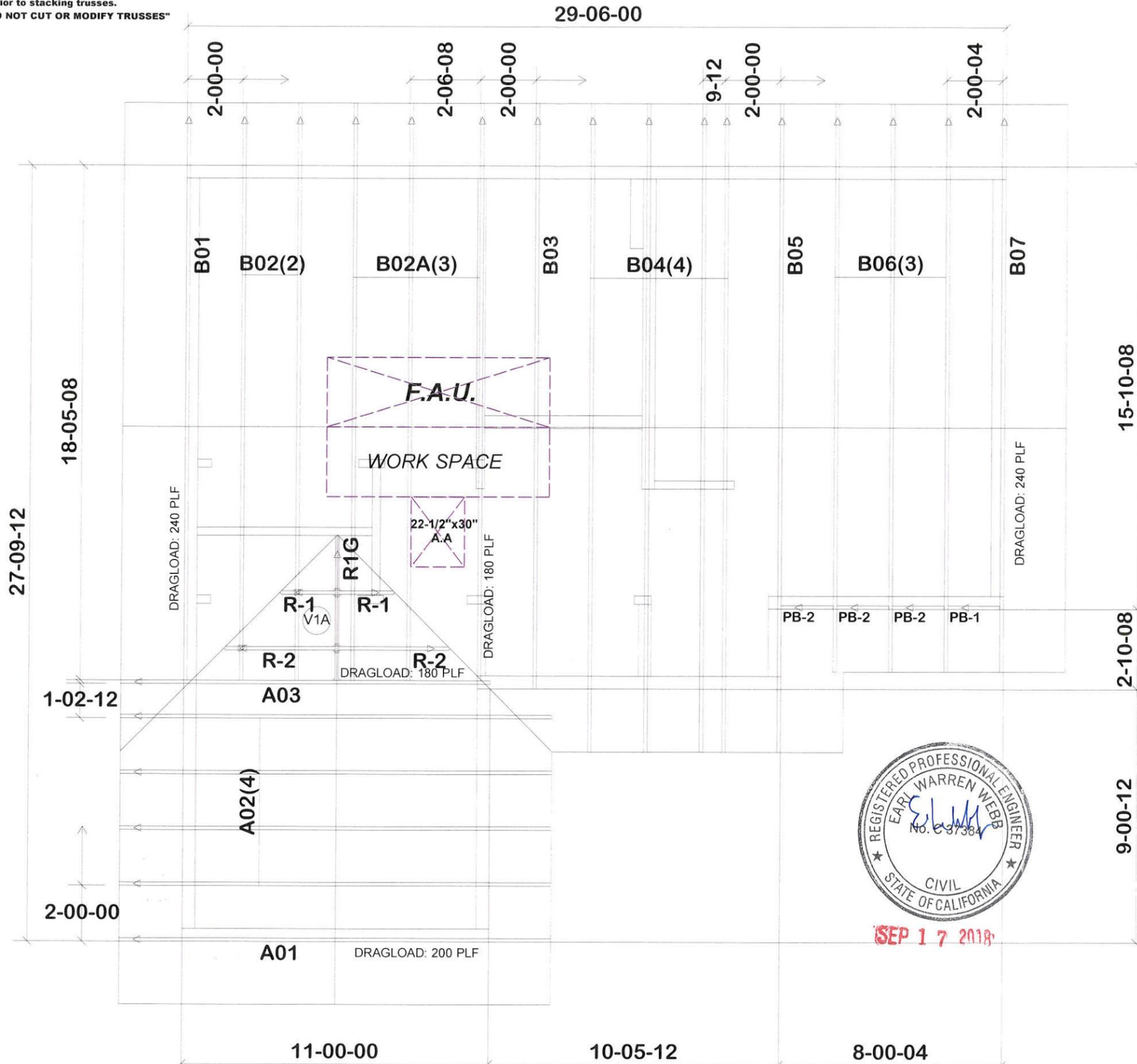
The TP program involves daily in-plant quality control checks by plant personnel and periodic unannounced inspections by TP personnel for conformance to engineering and industry standards for fabricators. The TP quality stamp on each truss bearing the registered GTI log is your assurance that the trusses were fabricated in accordance with the TP Truss Quality Auditing Program and applicable sections of the IBC and IRC. Specific design loads and installation requirements are not covered by the TP Auditing Program.

Please note that the quality programs are automatically renewed unless requested otherwise. Any questions about this program, the facilities status in the program or the use of the TP registered quality stamps should be directed to Timber Products Inspection, Inc. at (770) 922-8000.

Sincerely,
Timber Products Inspection

Patrick C. Edwards, P.E.
Director of Engineering

"Trusses are spaced as shown on layouts. Extra trusses are not provided for flush can lights or air registers.
Please coordinate special truss placement with job superintendent prior to stacking trusses.
Adjust truss spacing to clear can lights and air register as needed, DO NOT CUT OR MODIFY TRUSSES"



CTF California TrusFrame LLC
 People, Drive, Honor...Our Formula for Success!
 23665 CAJALCO ROAD
 PERRIS, CA 92570
 TEL 951-657-7491 FAX 951-940-5176
 www.CalTrusFrame.com

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer.

Framer is responsible for accurate spacing of trusses as designed and called out on placement plan. All trusses spaced at 24" oc unless noted otherwise.

TRUSS PLACEMENT PLAN
 SCALE: 1/4"=1'-0"

GROVE VILLAGE

CUSTOMER: NEW EVOLUTION CONSTRUCTION
 DEVELOPER: PRIVATE
 LOCATION: RIVERSIDE, CA.

PITCH : 6/12 U.N.O OVERHANG: 24"
 LOADING : TCLL=20 / TCDL=14 / BCDL=10

PROJECT No: 29073
 DESIGNER: BRENDA V

REV. BY	REV. DATE

THIS LAYOUT IS FOR PLACEMENT PURPOSES ONLY AND IS NOT INTENDED AS A STRUCTURAL ENGINEERING DOCUMENT. ALL BEAM SIZES NOTED PER STRUCTURAL PLAN SET

Spans over 60' may require complex permanent bracing. Consult a Registered Design Professional.

General Notes

Trusses are not marked in any way to identify the frequency or location of temporary lateral restraint and diagonal bracing. Follow the recommendations for handling, installing and temporary restraining and bracing of trusses. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for more detailed information.

Truss Design Drawings may specify locations of permanent lateral restraint or reinforcement for individual truss members. Refer to the BCSI-B3*** for more information. All other permanent bracing design is the responsibility of the building designer.

Notas Generales

Las trusses no están marcadas de ningún modo que identifique la frecuencia o localización de restricción lateral y arrioste diagonal temporales. Use las recomendaciones de manejo, instalación, restricción y arrioste temporal de los trusses. Vea el folleto BCSI - Guía de Buena Práctica para el Manejo, Instalación, Restricción y Arrioste de los Trusses de Madera Conectados con Placas de Metal*** para información más detallada.

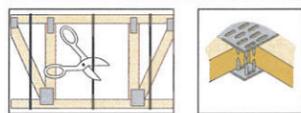
Los dibujos de diseño de los trusses pueden especificar las localizaciones de restricción lateral permanente o refuerzo en los miembros individuales del truss. Vea la hoja resumen BCSI-B3*** para más información. El resto de los diseños de arriostres permanentes son la responsabilidad del diseñador del edificio.

DANGER The consequences of improper handling, erecting, installing, restraining and bracing can result in a collapse of the structure, or worse, serious personal injury or death.

¡PELIGRO! El resultado de un manejo, levantamiento, instalación, restricción y arrioste incorrecto puede ser la caída de la estructura o aún peor, heridas o muertos.

CAUTION Exercise care when removing banding and handling trusses to avoid damaging trusses and prevent injury. Wear personal protective equipment for the eyes, feet, hands and head when working with trusses.

¡CAUTELA! Utilice cautela al quitar las ataduras o los pedazos de metal de sujetar para evitar daño a los trusses y prevenir la herida personal. Lleve el equipo protector personal para ojos, pies, manos y cabeza cuando trabaja con trusses.

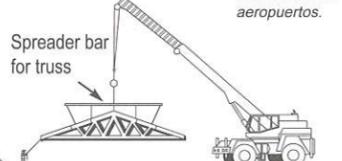


Handling - Manejo

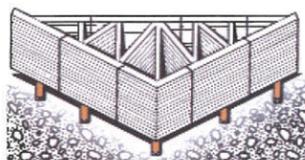
NOTICE Avoid lateral bending. Evite la flexión lateral.

NOTICE The contractor is responsible for properly receiving, unloading and storing the trusses at the jobsite. Unload trusses to smooth surface to prevent damage.

El contratista tiene la responsabilidad de recibir, descargar y almacenar adecuadamente los trusses en la obra. Descargue los trusses en la tierra lisa para prevenir el daño.



Use proper rigging and hoisting equipment. Use equipo apropiado para levantar e improvisar.



Trusses may be unloaded directly on the ground at the time of delivery or stored temporarily in contact with the ground after delivery. If trusses are to be stored for more than one week, place blocking of sufficient height beneath the stack of trusses at 8' (2.4 m) to 10' (3 m) on-center (o.c.).

DO NOT store unbraced bundles upright. NO almacene verticalmente los trusses sueltos.



DO NOT store on uneven ground. NO almacene en tierra desigual.



Refer to BCSI*** for more detailed information pertaining to handling and jobsite storage of trusses. Vea el folleto BCSI*** para información más detallada sobre el manejo y almacenado de los trusses en área de trabajo.

Hoisting and Placement of Truss Bundles

- DON'T overload the crane. NO sobrecargue la grúa. NEVER use banding to lift a bundle. NUNCA use las ataduras para levantar un paquete.



WARNING Do not overload supporting structure with truss bundle. ¡ADVERTENCIA! No sobrecargue la estructura apoyada con el paquete de trusses.

Place truss bundles in stable position. Puse paquetes de trusses en una posición estable.

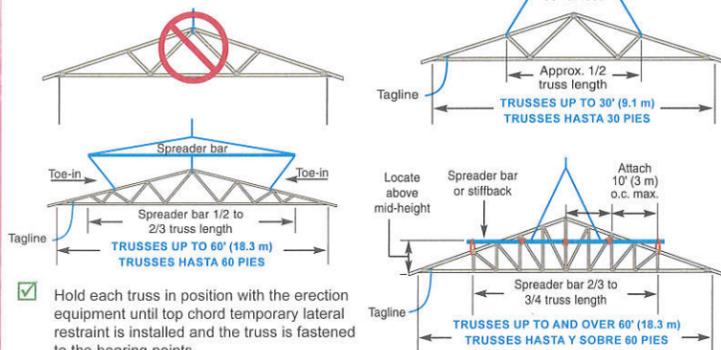
A single lift point may be used for bundles of top chord pitch trusses up to 45' (13.7 m) and parallel chord trusses up to 30' (9.1 m). Use at least two lift points for bundles of top chord pitch trusses up to 60' (18.3 m) and parallel chord trusses up to 45' (13.7 m). Use at least three lift points for bundles of top chord pitch trusses >60' (18.3m) and parallel chord trusses >45' (13.7 m).

Puede usar un solo lugar de levantar para paquetes de trusses de la cuerda superior hasta 45' y trusses de cuerdas paralelas de 30' o menos. Use por lo menos dos puntos de levantar con grupos de trusses de cuerda superior inclinada hasta 60' y trusses de cuerdas paralelas hasta 45'. Use por lo menos dos puntos de levantar con grupos de trusses de cuerda superior inclinada mas de 60' y trusses de cuerdas paralelas mas de 45'.

Mechanical Hoisting Recommendations for Single Trusses

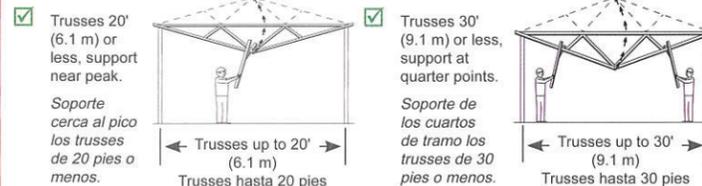
NOTICE Using a single pick-point at the peak can damage the truss.

El uso de un solo lugar en el pico para levantar puede hacer daño al truss.



Hold each truss in position with the erection equipment until top chord temporary lateral restraint is installed and the truss is fastened to the bearing points. Sostenga cada truss en posición con equipo de grúa hasta que la restricción lateral temporal de la cuerda superior esté instalado y el truss está asegurado en los soportes.

Installation of Single Trusses by Hand



Temporary Restraint & Bracing

NOTICE Refer to BCSI-B2*** for more information.

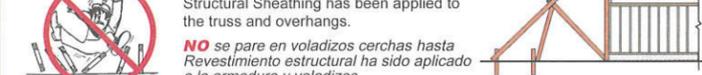
Vea el resumen BCSI-B2*** para más información.

Locate ground braces directly in line with all rows of top chord temporary lateral restraint (see table in the next column).

Coloque los arriostres de tierra para el primer truss directamente en línea con cada una de las filas de restricción lateral temporal de la cuerda superior (vea la tabla en la próxima columna).

DO NOT walk on unbraced trusses. NO camine en trusses sueltos.

DO NOT stand on truss overhangs until Structural Sheathing has been applied to the truss and overhangs. NO se pare en voladizos cerchas hasta Revestimiento estructural ha sido aplicado a la armadura y voladizos.



Steps to Setting Trusses

- 1) Install ground bracing. 2) Set first truss and attach securely to ground bracing. 3) Set next 4 trusses with short member temporary lateral restraint (see below). 4) Install top chord diagonal bracing (see below). 5) Install web member plane diagonal bracing to stabilize the first five trusses (see below). 6) Install bottom chord temporary lateral restraint and diagonal bracing (see below). 7) Repeat process with groups of four trusses until all trusses are set.

- 1) Instale los arriostres de tierra. 2) Instale el primero truss y ate seguramente al arrioste de tierra. 3) Instale los próximos 4 trusses con restricción lateral temporal de miembro corto (vea abajo). 4) Instale el arrioste diagonal de la cuerda superior (vea abajo). 5) Instale arrioste diagonal para los planos de los miembros secundarios para estabilice los primeros cinco trusses (vea abajo). 6) Instale la restricción lateral temporal y arrioste diagonal para la cuerda inferior (vea abajo). 7) Repita este procedimiento en grupos de cuatro trusses hasta que todos los trusses estén instalados.

NOTICE Refer to BCSI-B2*** for more information.

Vea el resumen BCSI-B2*** para más información.

Restraint/Bracing for All Planes of Trusses

Minimum lumber used for lateral restraint and diagonal bracing is 2x4 stress-graded lumber. Attach to each truss with at least 2-10d (0.128x3"), 2-12d (0.128x3.25") or 2-16d (0.131x3.5") nails.

La madera 2x4 clasificada por estrés es la madera mínima utilizada para restricción lateral y arriostre diagonal. Atarlas a cada braguer con al mínimo 2 clavos 10d (0.128x3"), 12d (0.128x3.25") o 16d (0.131x3.5").

This restraint and bracing method is for all trusses except 3x2 and 4x2 parallel chord trusses (PCTs). See top of next column for temporary restraint and bracing of PCTs.

Este método de restricción y arrioste es para todos trusses excepto trusses de cuerdas paralelas (PCTs) 3x2 y 4x2. Vea la parte superior de la columna para la restricción y arrioste temporal de PCTs.

1) TOP CHORD PLANE - CUERDA SUPERIOR

Table with 2 columns: Truss Span / Longitud de Tramo and Top Chord Temporary Lateral Restraint (TCTLR) Spacing / Espaciamiento del Arrioste Temporal de la Cuerda Superior. Rows include spans up to 30', 30'-45', 45'-60', and 60'-80'.

*Consult a Registered Design Professional for trusses longer than 60' (18.3 m). *Consulte a un Profesional Registrado de Diseño para trusses más de 60 pies.

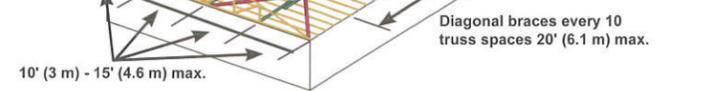
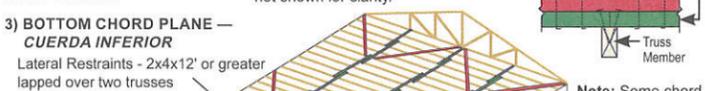
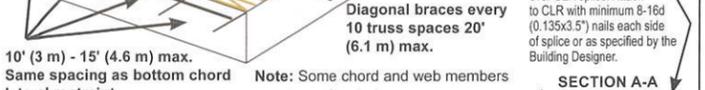
See BCSI-B2*** for TCTLR options. Vea el BCSI-B2*** para las opciones de TCTLR.

NOTICE Refer to BCSI-B3*** for Gable End Frame restraint/bracing/reinforcement information. Para información sobre restricción/arrioste/refuerzo para Armazones Hastiales vea el resumen BCSI-B3***

Note: Ground bracing not shown for clarity. Repita los arriostres diagonales para cada grupo de 4 trusses.

LATERAL RESTRAINT & DIAGONAL BRACING ARE VERY IMPORTANT

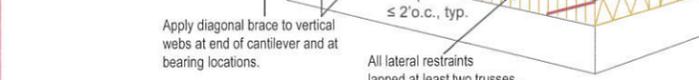
¡LA RESTRICCIÓN LATERAL Y EL ARRIOSTRE DIAGONAL SON MUY IMPORTANTES!



Restraint & Bracing for 3x2 and 4x2 Parallel Chord Trusses

NOTICE Refer to BCSI-B7*** for more information.

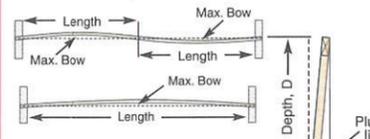
Vea el resumen BCSI-B7*** para más información.



*Top chord temporary lateral restraint spacing shall be 10' (3 m) o.c. max. for 3x2 chords and 15' (4.6 m) o.c. for 4x2 chords.

Installing - Instalación

Tolerances for Out-of-Plane. Tolerancias para Fuera-de-Plano.



Tolerances for Out-of-Plumb. Tolerancias para Fuera-de-Plomada.

Construction Loading Carga De Construcción

- DO NOT proceed with construction until all lateral restraint and bracing is securely and properly in place. NO proceda con la construcción hasta que todas las restricciones laterales y los arriostres estén colocados en forma apropiada y segura. DO NOT exceed maximum stack heights in table at right. Refer to BCSI-B4*** for more information. NO exceda las alturas máximas de montón. Vea el resumen BCSI-B4*** para más información.

Table with 2 columns: Material and Maximum Stack Height for Material on Trusses. Rows include Gypsum Board, Plywood or OSB, Asphalt Shingles, Concrete Block, and Clay Tile.



NEVER stack materials near a peak, at mid-span, on cantilevers or overhangs. NUNCA apile los materiales cerca de un pica, a centro de la luz, en cantilevers o aleros.

DO NOT overload small groups or single trusses. NO sobrecargue pequeños grupos o trusses individuales.

Place loads over as many trusses as possible. Coloque las cargas sobre tantos trusses como sea posible.

Position loads over load bearing walls. Coloque las cargas sobre las paredes soportantes.

Alterations - Alteraciones

NOTICE Refer to BCSI-B5***

DO NOT cut, alter, or drill any structural member of a truss unless specifically permitted by the truss design drawing.

NO corte, altere o perforo ningún miembro estructural de un truss, a menos que esté específicamente permitido en el dibujo del diseño del truss.

Trusses that have been overloaded during construction or altered without the Truss Manufacturer's prior approval may render the Truss Manufacturer's limited warranty null and void.

Trusses que se han sobrecargado durante la construcción o han sido alterados sin la autorización previa del Fabricante de Trusses, pueden hacer nulo y sin efecto la garantía limitada del Fabricante de Trusses.

Contact the Component Manufacturer for more information or consult a Registered Design Professional for assistance.

NOTE: The truss manufacturer and truss designer rely on the presumption that the contractor and crane operator (if applicable) are professionals with the capability to undertake the work they have agreed to do on any given project. If the contractor believes it needs assistance in this document are intended to ensure that the overall construction techniques employed will put the trusses into place SAFELY. These recommendations for handling, installing, restraining and bracing trusses are based upon the collective experience of leading personnel involved with truss design, manufacture and installation, but must, due to the nature of responsibilities involved, be presented only as a GUIDE for use by a qualified building designer or contractor. It is not intended that these recommendations be interpreted as superior to the building designer's design specification for handling, installing, restraining and bracing trusses and it does not preclude the use of other equivalent methods for restraining/bracing and providing stability for the walls, columns, floors, roofs and all the interrelated structural building components as determined by the contractor. Thus, SBCA and TPI expressly disclaim any responsibility for damages arising from the use, application, or reliance on the recommendations and information contained herein.

SBCA and TPI logos and contact information. SBCA: 6300 Enterprise Lane • Madison, WI 53719. TPI: TRUSS PLATE INSTITUTE, 218 N. Lee St., Ste. 312 • Alexandria, VA 22314.